

# MacAddict

ANNUAL AWARDS ISSUE

## THE BEST AND WORST OF 2002

- Editors' Choice: The 35 Best Products of the Year
- The Biggest Surprises, the Most Important Events
- Triumphs, Embarrassments, Oddities, and Blunders

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p.95

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## FASTER, PUSSYCAT, KILL, KILL!

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### REVIEWED:

← 1GHz PowerBook G4, Cleaner 6, Palm Tungsten T and Zire, StuffIt Deluxe 7.0.1, Jedi Knight II: Jedi Outcast, Kodak EasyShare DX4330, Tempo Trio, and more...



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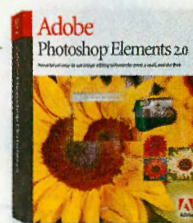
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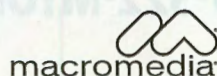
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## FEATURES

### 20 The Best and Worst of 2002

What were the best software and hardware products of 2002? The worst? The game that never should have seen the fluorescent lights of CompUSA? Apple's biggest blunder of the year? Reminisce about the past year with us in our annual Best and Worst opinion-fest. **by Righteous Rik and the MacAddict Stafftones**



### 28 To Serve and Protect: Inside Mac OS X Server

Whether you are a system administrator or Webmaster, Apple's Mac OS X Server wants to be your new best friend. Here's how to get it up and running in no time flat. **by Niko Coucouvanis**

28

It's an OS even PETA could love.

20

Everybody: Y-M-C-A...



## HOW TO

### 54 Ask Us

Did your iMac start looking fuzzy after you installed Jaguar? Are you trying to create a bootable Mac OS X CD? Looking to fill Apple's Address Book with your Microsoft Entourage and Outlook Express contacts? How about working with Webcams, iTunes, DivX, fax software, AirPort, and ifconfig? We've got you covered. **by Buz Zoller**

56

Prints? Charming!



### 56 Fix Funked-Up Photos and Print Perfect Pics

If you have a digital camera, you've probably had your share of underexposed, blurry, demon-eyed, or weird-colored subjects in your pics. Find out how to fix the spoilers and get photo-realistic prints from any printer. **by Kris Fong**

### 62 Share One Internet Connection in Jaguar

Momma always told us to stop fighting and learn to share, so we're passing on this wise advice to all of you with a single Internet connection who refuse to buy a router. You don't need to—not if you have Jaguar. **by Ian Sammis**

62

Is a group of iMacs a gaggle or a flock?



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Print Dis File.



69

Name that emoticon!

### 66 Create PDFs

It took you five long hours to create that stylized company report with all those fancy fonts and darling dingbats, so why is your boss mad? Because she didn't have the application or the fonts to enjoy your handiwork. Next time, make a PDF. We show you three optimal methods. **by Carol S. Holzberg**

### 69 Find Files Faster via the Terminal

We hate waiting, but with 120GB on our FireWire bus, we have no choice when it comes to finding files in our vast system. Or do we? If you want quick results, here's how to locate files almost instantaneously using Terminal. **by Kris Fong**

FEBRUARY 2003  
NO. 78 • VOLUME 8 • ISSUE 2

ON THE COVER



Cover photograph by Mark Madeo.



## EVERY MONTH

**10 Editors' Page**

What do flaming hard drives, furniture-destroying printers, and Reader Rabbit have in common? They've all helped make our editor in chief the man he is today.

**12 Get Info**

There's a new IBM PowerPC chip on the horizon that might lure Apple away from its long-standing partner, Motorola. While you're waiting to see how that soap opera develops, check out a fire-breathing FireWire hub, a 63-inch plasma display, and the latest from Tony Hawk. And if you're into retro, we've got CDs and a marvelous mod that are right up your alley.

**35 Reviews**

- 41 **1GHz PowerBook G4** supercomputer to go
- 36 **Cleaner 6** video-compression software
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- 47 **Fallout 2** role-playing adventure game
- 38 **Freeway 3.5.5** Web-design software
- 49 **Intermediate Guitar Method** instructional CD-ROM
- 37 **Jedi Knight II: Jedi Outcast** first-person shooter
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- 46 **Tempo Trio** USB 2.0, ATA/133, and FireWire upgrade card
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- 50 **X-Arcade** game controller
- 51 **Yamaha CRW-F1ZDX CD Recorder** CD-RW drive

**52 The Hot List**

The best of the best from recent reviews. If the editors of *MacAddict* went shopping, this is what we'd buy.

**94 Log Out****94 Letters**

This month you tell us that we don't know our elves from our demons, that you have great taste in doggie names, and that sarcasm still lives. Oh, and one of you needs a remedial semester of iBook 101.

**95 Contest**

If Anna Nicole can be a star, Max should be a shoe-in. Pitch a pilot for him and win an El Gato EyeTV DV recorder.

**96 Shut Down**

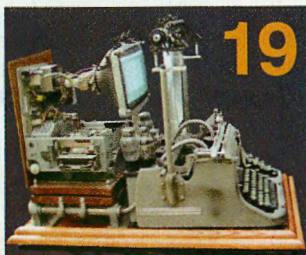
Our art director, Chris Imlay, has some strong opinions on moronic product names. Plus, discover new uses for your shiny new Mac.

**95**

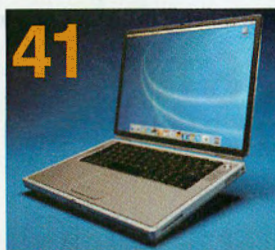
The land of Aqua knows no boundaries.



Those Sopranos belong behind bars.



My other Mac is a G4.



For our next trick, we will make the TiBook levitate.



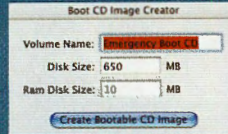
37 Here we see the hatchling walker emerging from the nest.

**QUICK TIPS**

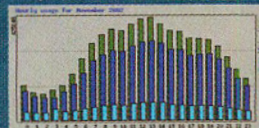
...from this month's issue.

**Create a Bootable CD**

You can *finally* create a bootable OS X CD—all it takes is a copy of a free utility called BootCD ([www.charlessoft.com](http://www.charlessoft.com)), which makes a bootable CD containing applications that actually run.

From *Ask Us*, p54**Manage Your Site Stats**

If you want to know how popular your Web site is, install Webalizer ([www.mrunix.net/webalizer](http://www.mrunix.net/webalizer)), a free utility that reports and graphs hits per page, per hour, per country, and more. From "To Serve and Protect," p28

**Upgrade Your Scanner**

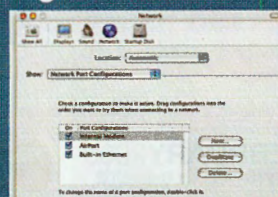
Having trouble getting your scanner to work in OS X? Need more control over scanning? Install Ed Hamrick's VueScan driver software ([www.hamrick.com](http://www.hamrick.com)) and your troubles should be over. From "The Best and Worst of 2002," p20

**Sharpen Using Unsharp Mask**

If you're new to Adobe Photoshop or Photoshop Elements, resist the urge to use the Sharpen filters. Despite its deceptive name, Unsharp Mask gives you better sharpening control. From "Fix Funked-Up Photos and Print Perfect Pics," p56

**Surf to the Right Port**

If you're trying to share the Internet across a LAN, make sure the port leading to the Internet is listed first in the Network Port Configurations panel. From "Share One Internet Connection in Jaguar," p62

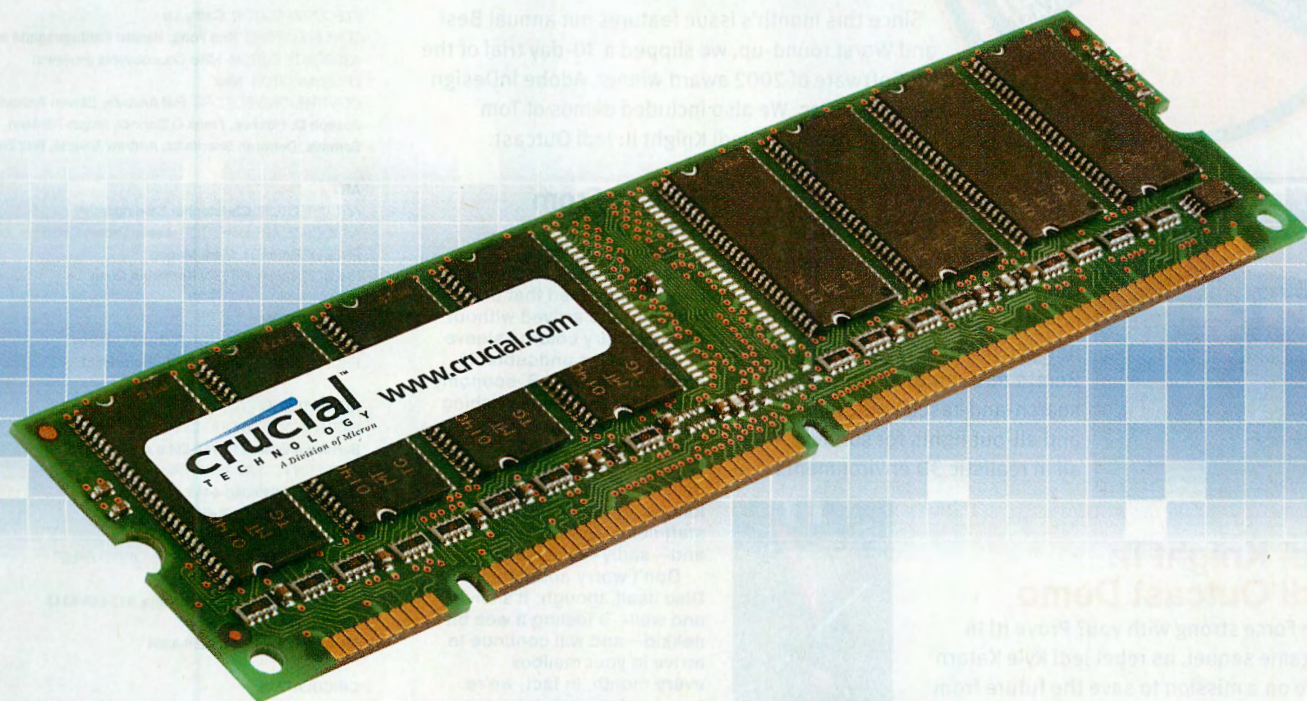
**Revive an Old Webcam**

In our experience, Webcams are candidates for the hardware-most-likely-to-go-unused-and-end-up-in-some-old-drawer award. If you run across one, revive it with a driver from iOXperts. From *Ask Us*, p54





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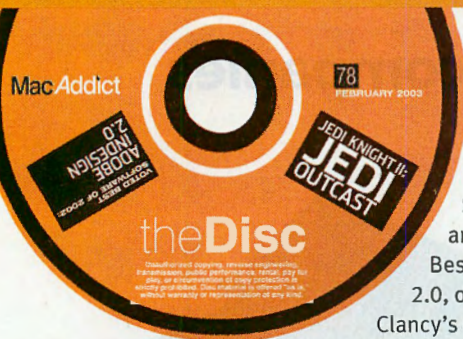
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# theDisc

## BATTLE ON!

Since this month's issue features our annual Best and Worst round-up, we slipped a 30-day trial of the Best Software of 2002 award winner, Adobe InDesign 2.0, onto the Disc. We also included demos of Tom Clancy's Ghost Recon and Jedi Knight II: Jedi Outcast.



### Tom Clancy's Ghost Recon Demo

Looking to gain combat experience from the comfort of your own home? Tom Clancy's Ghost Recon has you leading a team of Green Berets through demolitions, search-and-rescue missions, and all-out fights for survival—all in realistic 3D environments.

### Jedi Knight II: Jedi Outcast Demo

Is the Force strong with you? Prove it! In this game sequel, as rebel Jedi Kyle Katarn you're on a mission to save the future from an evil threat. Use the Force, a few Jedi mind tricks, your lightsaber, and a myriad of other weaponry to attack the enemy.



### A Note From the Editor

If you're a MacAddict subscriber—thank you—you may have noticed that this month's Disc arrived without its customary colorful sleeve.

You've also undoubtedly noticed that the U.S. economy in general and the publishing business in particular are in the dumpster these days. Gone are the high-flying days of all-you-can-eat sushi lunches, margarita-laden staff soirees in Cancun, and—sadly—Disc sleeves.

Don't worry about the Disc itself, though: It's alive and well—if feeling a wee bit nekkid—and will continue to arrive in your mailbox every month. In fact, we're now hard at work gussying it up—expect a revamped interface Real Soon Now.

—Rik Myslewski

## MacAddict

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## theList

### AUDIO & MUSIC

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OS X 4.5.2 trial

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Atomic Mac  
(OS X) 5.5.1  
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Avalanche  
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Tom Clancy's Ghost  
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### INTERNET & COMMUNICATION

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Webalizer 2.01-09

### PRODUCTIVITY

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### UTILITIES

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DiskTracker  
(OS X) 2.2.2  
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Renicer 1.1.6  
ResPloder 1.6.3  
StuffIt STD Classic  
7.0.1 demo  
StuffIt STD OS X  
7.0.1 demo  
The Fontz X 3.4.2  
Youpi Key 1.7.4

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REALbasic  
OS X 4.5.2 trial

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# What We're Here For

"96, 97, 98, 99." Damn. I had so hoped it'd run into triple digits. "Niko, do you have any more?"

"Oh, yeah. Under my desk."

"Cool," thought I. "100, 101...108, 109." Final count: 109 boxes on the floor, containing products either waiting for testing or just tested—and I only counted the boxes on our *floor*. If I were to add the wall of software looming over Kris, Niko's projects in our test lab, and the gaggle of goodies crowding my own cube...well, I'd probably still be counting.

We test a lot of products here at *MacAddict*. We have to. Our sacred duty is to help you get the most out of your Mac—advising you about the right software and hardware is a big part of that mission. And it's not always easy.

Just ask Niko, the guy in charge of our reviews. He'll tell you how nothing ever works *exactly* as advertised. How companies promise their software will be available Tuesday, but neglect to tell you they meant the Tuesday after next. And how

no matter how many carefully developed tests you run, it's the one you *didn't* run that would've uncovered a product's hidden brilliance or Achilles' heel.

Or ask Cathy, Kris, Narasu, Jen, Chris, or Leslie. About game controllers that are out of control. About digital cameras we want to love, but that disappoint us—and manufacturers who can't (or won't) tell us why. About game testing, which often turns from fun to frustration after hours of trying to get past a certain level—is it we who are dumb, or is it the game?

Or ask Kristina De Nike—a freelance expert who's testing 18 printers for an upcoming feature. Ask her about the Zen-like trance induced by printing a total of 1,152 test pages.

Or ask me. After testing thousands of products over the past 14 years, I've got plenty of stories to tell. Want to hear the one about the hard drive that caught fire? The printer that vibrated so badly it destroyed a test bench? Or the time I tested 300 children's educational-software

packages? How endearing is Reader Rabbit after 300 cutesy-wootsie bunny-wunnies and doggie-woggies have romped across your retinas? I wanted to grab my widdle shotgun-wotgun and blast his sorry assie-wassie, that's how endearing.

But we keep at it. Products misbehave, we figure out why, and we warn you. Products amaze us, and we share the good news. And we keep studying, debating, questioning—learning everything we must know to ensure our testing is thorough, accurate, and *useful*. After all, you paid good money for this copy of *MacAddict*; you deserve not just good information, but also good advice—and that's what we're here for.—Rik Myslewski



After hours of hard-drive testing, Rik Myslewski attains nirvana.

## STAFF RANTS

Q1: What's the most infuriating thing about testing?  
Q2: Do you have any product-testing horror stories?

**Narasu Rebbapragada**  
Deadliner

**What's the most infuriating thing about testing?**

I'll test a product for a week, take pages of notes, and then have to boil down my incisive insights to a measly 300 words when all Niko has room for is a half-page review.

**Do you have any product-testing horror stories?**

There was the time that I tested the Sharp LL-T1820 18.1-inch LCD display. All the documentation was in Japanese, so I didn't discover that it could swivel from landscape to portrait mode until after the review went to press. Oops...



**Niko Coucouvanis**  
Counterindoctrinator

**What's the most infuriating thing about testing?**

I'm always scared I'll miss something—like how well that USB printer works when attached to a Performa 520 (running System 7.6) via a SCSI-USB adapter. Really, I lose sleep over that.

**Do you have any product-testing horror stories?**

It truly sucks when a company bugs us to review its latest beta or otherwise incomplete or vaporous product when it knows we don't review anything until it's ready for mass consumption.



**Kris Fong**  
Pillar of Procrastination

**What's the most infuriating thing about testing?**

Sometimes just getting to the actual testing part—I've gotten products without the necessary power cords, drivers, or software; received Windows versions of software; and received stuff that was DOA.

**Do you have any product-testing horror stories?**

A certain PR person called me, everyone on staff, and the Powers That Be to bitch about a rating I gave a company's product—and it was a one-rung-short-of-the-top-of-the-ladder rating. Go figure.



**Cathy Lu**  
Town Crier

**What's the most infuriating thing about testing?**

When the product doesn't work as advertised, I experience feelings of insecurity, wondering if it's my fault and not the product's. Come to think of it, this is probably why I'm in therapy.

**Do you have any product-testing horror stories?**

I once criticized the size of a mouse, saying it was great if you had huge hands. The company then inundated me with calls from, ahem, "real" users telling me about their love of mega mice.



**Chris Imlay**  
Licensed Gameologist

**What's the most infuriating thing about testing?**

Testing a modern game on an old Mac. The plodding framerate makes it look more like a slide show than a game.

**Do you have any product-testing horror stories?**

I tested a FireWire CD burner that arced and fried the FireWire bus controller on my Mac's motherboard. Welding with FireWire! I never took that shop class in high school.



**Jenifer Morgan**  
Driving Miss Crazy

**What's the most infuriating thing about testing?**

It's that slow and painful bludgeoning to death of optimism and enthusiasm when you can't get gamepad drivers to work properly.

**Do you have any product-testing horror stories?**

Let's just say that I remember thinking it was easier to learn how to land an airplane in real life than in a sim—though admittedly not as fun to crash.



**Leslie Osborn**  
Ozila

**What's the most infuriating thing about testing?**

It's the feeling like there's homework to do—even though I'm amped up about trying out something new. Must be the bratty schoolkid in me.

**Do you have any product-testing horror stories?**

One time, I was really enjoying testing a product and...they asked for it back! Noooooooo!



**Max**  
Man of Letters

**What's the most infuriating thing about testing?**

That the SAT gauges only a small part of a student's abilities and talents, and that standardized testing is vastly overrated.

**Do you have any product-testing horror stories?**

Oh, you're talking about *product* testing? Rik, Rik, Rik...If you're this imprecise in your "Staff Rant" questions, how can our readers trust your product evaluations? Slow down, big fella.



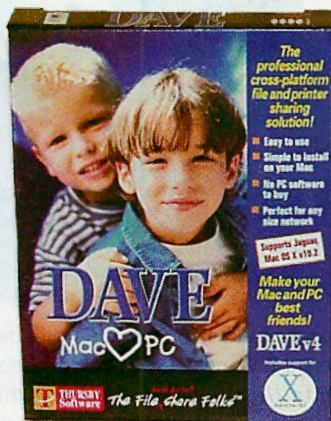


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# IBM CHIP TEMPTS APPLE

## New PowerPC 970 to Kick Motorola's Butt

A new chip from IBM could put an end to Apple's long relationship with Motorola. Scheduled to go into production in the second half of 2003, IBM's PowerPC 970 microprocessor should be fast enough to blow the proverbial roof off Motorola's existing flagship CPU, used in the current dual-everything Power Macs.

Motorola has been the sole supplier of top-end Apple microprocessors since 1984. Although Apple's not talking—and who can blame the company, since it needs to keep selling Motorola MPC7455-equipped Power Macs in the foreseeable future—we would not be surprised if an IBM PowerPC 970-equipped Mac shared the stage with Steve at the San Francisco Expo in January 2004.

The first PowerPC 970s are scheduled to clock in at 1.4GHz and 1.8GHz, along

with the same language and accomplishes the same tasks as the unit in the MPC7455, Motorola's AltiVec. Also known as the Velocity Engine, this lil' puppy helps Macs kick serious media and Photoshop hiney. The PowerPC 970's SIMD unit, projected to max out at around 14.4 gigaflops, is theoretically faster than the current AltiVec engine, which Apple says can achieve "a theoretical peak performance of 5.3 gigaflops." (A *gigaflop* is 1 billion floating-point operations per second; a *floating-*

point operation is mathematical mojo that computes real numbers within finite, preset limits of precision—but you already knew that.) Plus, the PowerPC 970's SIMD unit shouldn't require developers to rewrite their apps to run on it, and that's a very big deal.

Also impressive is the speed of the PowerPC 970's *frontside bus*—the path through which the chip communicates with the system in which it is installed. The 970's frontside bus can handle data at a full 6.4 GBps, nearly five times as fast as the Motorola MPC7455's 1.3-GBps frontside bus. The PowerPC 970 accomplishes this feat by double-pumping

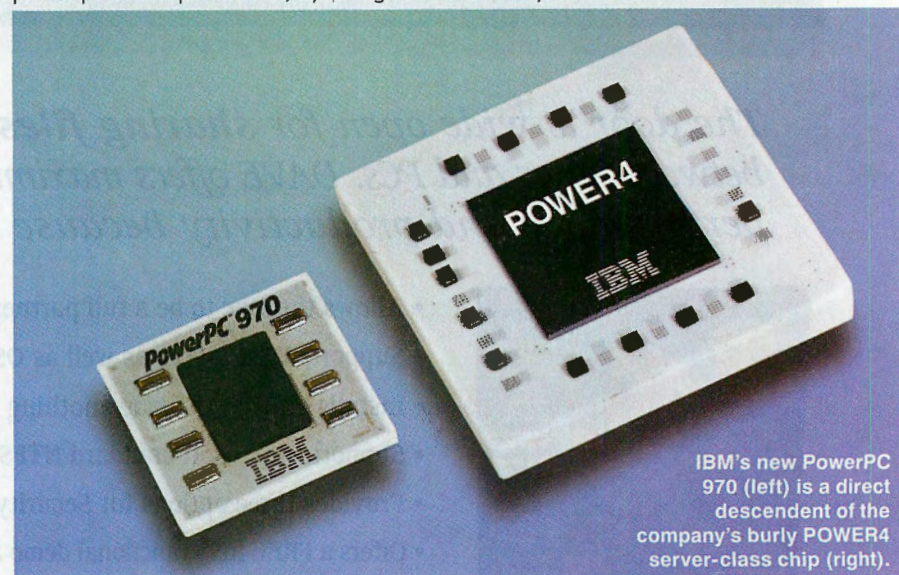
its 450MHz frontside bus, enabling it to take full advantage of the DDR (double data rate) SDRAM in Apple's top-end Power Macs. Right now, Motorola's MPC7455 is stuck with a bottleneck-inducing 133MHz non-DDR-capable frontside bus (see "The New Power Macs: Inside and Out," Nov/02, p20), which hampers performance.

The PowerPC 970 is a 64-bit chip; the MPC7455—and, for that matter, Intel's Pentium 4—is only 32 bit. Although developers will need to rewrite software

### The 970's frontside bus can handle data nearly five times as fast as the Motorola MPC7455's frontside bus.

with a laptop-capable version running at 1.2GHz. While 1.8GHz may not sound like much compared to 3GHz Intel chips, the PowerPC 970 will put each and every one of those clock cycles to good use. It will, for example, fetch twice as many instructions per cycle as Motorola's MPC7455 and feed them into a highly optimized set of 12 *execution units*—the parts of the chip where the work gets done. The complexity of these units and how they receive data is one reason why the PowerPC 970 contains 52 million transistors. (Motorola's MPC7455 has only 33 million.) Even with all those transistors, however, the PowerPC 970 is a power miser. At 42 watts it compares favorably with the MPC7455's 30W, and its 1.2GHz version soaks up only a teensy-weensy 19W—good news for laptop lovers.

Among the PowerPC 970's execution units is an SIMD (single instruction, multiple data) vector engine that speaks



IBM's new PowerPC 970 (left) is a direct descendant of the company's burly POWER4 server-class chip (right).

Also impressive is the speed of the PowerPC 970's *frontside bus*—the path through which the chip communicates with the system in which it is installed. The 970's frontside bus can handle data at a full 6.4 GBps, nearly five times as fast as the Motorola MPC7455's 1.3-GBps frontside bus. The PowerPC 970 accomplishes this feat by double-pumping

to take full advantage of 64-bit power, David T. Wang of Real World Technologies (<http://realworldtech.com>) says that it would be a relatively easy task to update OS X to run on the PowerPC 970, and that the modifications made to the OS would enable existing 32-bit apps to run "in a seamless fashion"—more good news—while developers are upgrading their apps to run in full 64-bit mode. One immediate and somewhat mind-boggling benefit of the 970's 64-bit architecture is that it will be able to address 4 *terabytes* (trillions of bytes) of RAM. Start saving up your pennies.—Rik Myslewski

PHOTOGRAPH COURTESY OF IBM



# ANIMAL BYPRODUCTS

## Mixing Pets and Peripherals

If you're tired of the sterile white-and-Titanium color scheme Apple's doling out these days, answer the call of the wild with these animal-oriented USB and FireWire products.—NR

### COLBY T-REX➔

KidzMouse, [www.kidzmouse.com](http://www.kidzmouse.com), \$29.95

No wonder evolution got the best of this little bugger. This USB mouse is no match for the ferocious FireDino (see right), but the kids will like it.



### ◀HELLO KITTY HUBCAT

Sanrio,

[www.sanrio.com](http://www.sanrio.com),

available only in Japan

This charming little four-port USB hub purrs happily in Japan. It's still looking for a U.S. distributor, though.



### ◀FIREDINO HUB

Charismac,  
[www.charismac.com](http://www.charismac.com),  
\$74.95

This four-port FireWire hub should be available by the time you read this, should you dare to approach a rabid prehistoric beast.



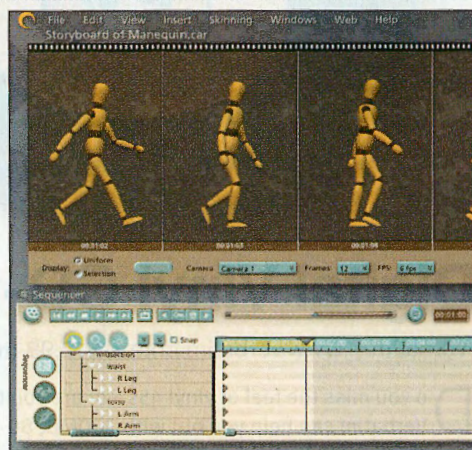
## 3D FOR \$99

### Eovia Introduces Carrara 3D Basics for Beginners

Following in the footsteps of Alias|Wavefront ([www.aliaswavefront.com](http://www.aliaswavefront.com)), which released a free Personal Learning Edition of its Maya software, Eovia ([www.eovia.com](http://www.eovia.com)) is offering a low-cost version of its Carrara Studio 2 (\$399) 3D graphics application. Called Carrara 3D Basics, this \$99 software lets you build and model 3D objects and includes Spline modeling, Metaball modeling, and Terrain modeling. It includes texture and shading features, special effects, animation, and three rendering engines.

It doesn't, however, offer some of Carrara Studio 2's high-end features, such as OpenGL support for faster speeds, a physics engine for animation calculations, bones for advanced character animation, and a vertex modeler. It also limits you to an output size of 1,280 by 1,024 pixels and simpler file formats such as GIF, BMP, and JPEG for rendering.

Mac users new to 3D graphics probably won't miss these features, and the price makes Carrara 3D Basics a reasonable introduction to the often price-prohibitive world of 3D.—NR

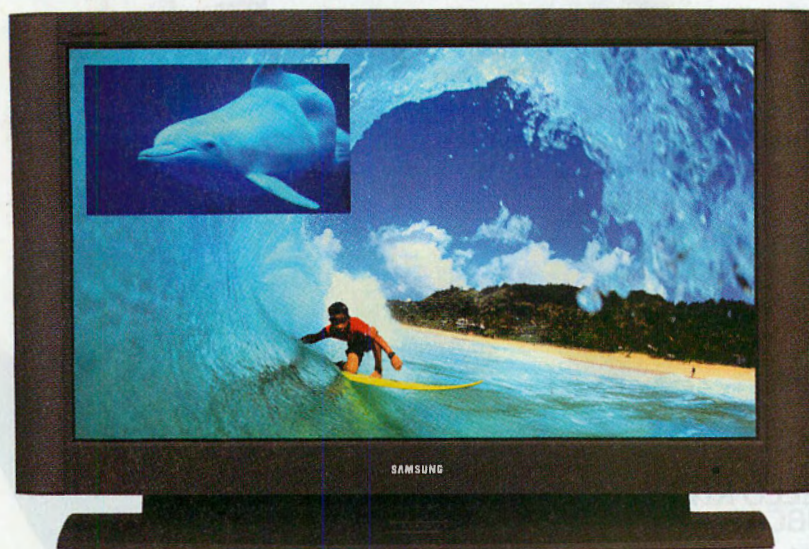


Give this man a bone.



## DROOLWORTHY

Sexy Stuff We Can't Wait to Get Our Mitts On



Channel surfing's better on 63 inches of plasma.

## 63-inch Plasma Display ↑

Samsung • [www.samsungusa.com/plasma](http://www.samsungusa.com/plasma) • \$17,995 (street)

This is the most monitor we've ever come across. The 63-inch, glass-screened Samsung PPM63H1 shows stunning video in multiple aspect ratios (including 4:3 and 16:9) and comes with a 10x zoom for enlarging part of the screen. With Component, S-Video, and RGB inputs, it plugs into your Mac and your TV, assuming you haven't hocked them to afford the price of plasma.—NR



We bet Fonzie would love these CD-Rs.

## Digital Vinyl CD-R ↑

Verbatim • [www.verbatim.com](http://www.verbatim.com) • \$12.99 (ten-pack)

Do you miss the feel of vinyl 45s—or are you too young to know what that even means? Verbatim can help you out with 700MB, 80-minute CD-Rs that look like 45-rpm vinyl records. They come in blue, green, pink, purple, and yellow in one-, five-, and ten-disc packs.—NR

## NEW STUFF

### DIRECTOR MX

Macromedia, [www.macromedia.com](http://www.macromedia.com), price not yet available

Available: December 2002

The newest version of Macromedia's high-end tool for interactive content creation ditches OS 9 and runs in OS X only. New features include control over Flash objects via Lingo (Director's programming language), better overall Flash integration, a new debugging window (a boon for programmers), support for MX content in the Shockwave Player, and the addition of the Object Inspector that you see in all other Macromedia MX products.

### 17-INCH PLANAR LCD DISPLAYS

Planar, [www.planar.com](http://www.planar.com),

\$559 (PL171M) or

\$519 (PM170)

Available: Now

The PL171M

17-inch LCD comes

in black, white,

or silver with

integrated speakers

and DVI and RGB

ports. The PL170 17-inch LCD is RGB only.



Hey, baby, check out this 17-inch LCD with integrated speakers.

### ACCOUNTEDGE 3

MYOB, [www.myob.com/us](http://www.myob.com/us), \$249

Available: Now

This popular small-business application now offers a multiuser mode, in which users on any platform can access AccountEdge accounts served from an OS X machine. Version 3 also includes new features for tracking inventory and business categories, as well as support for vCards.

### X85 ALL-IN-ONE PRINT CENTER

Lexmark, [www.lexmark.com](http://www.lexmark.com), \$199 (street)

Available: Now

This all-in-one black beast includes an inkjet printer that prints 4,800-by-1,200-dpi color on photo paper and 2,400-by-1,200-dpi black and white on all media types. The X85 also comes with a 600-by-1,200-dpi, 48-bit color flatbed scanner, a color copier, and scan-to-fax capability.



This all-in-one costs less than \$200.



The most evolved  
computers now have  
multi-functions and  
printers to match...



**COLOR LASER**  
From \$1499

**WORKGROUP  
LASER PRINTING**  
From \$699

**LASER PRINTING**  
From \$249

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FLATBED MFC**  
From \$249

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## IN THE STUDIO

# SELLING THE SOPRANOS

Video Production Company Creates Killer Ads for America's Favorite Killers

Three wise guys are responsible for luring thousands of innocent people into the mob. Television's version of the mob, that is.

They are the founders of Perception (www.perceptv.com), a New York City-based design, editing, and special-effects company that created the commercials for last fall's season premiere of HBO hit television series *The Sopranos*, now in its fourth year.

Perception's editorial director Brendan Werner, design director Jeremy Lasky, and effects director Daniel Gonzalez were colleagues at the broadcast studio division of R/Greenberg Associates (www.rga.com). The three decided they wanted more control over their work, so in March 2002 they started Perception.

Since then, Perception has created the opening titles for an eight-part ESPN

Perception's Brendan Werner, Daniel Gonzalez, and Jeremy Lasky (left to right) are the men behind the mobster ads.



PHOTOGRAPH BY MARK MADEO

Cut Pro and Adobe After Effects. It's a strategy that's paying off.

"The technology really has caught up in a lot of ways," says Lasky. "And with the economic times, it's all led to this streamlined model—creating a product that virtually matches [the work of] higher-end

type, logo, and other graphic elements in Illustrator and then married the graphics to the video clips in After Effects; and Werner edited the spot in Final Cut Pro.

Given the project's tight time frame, the Web came in handy. Instead of transporting tapes by overnight courier, Perception took each day's work, compressed it in Discreet Cleaner (\$599, www.discreet.com), and uploaded it to a site where HBO could view the ad in progress. "That way, everyone who needed to see it around the world could view it that night or the next morning," says Werner.

If the Perception team members have any gripes about their Mac-based editing system, it's the rendering speeds. Mac speeds aren't quite as fast as those of higher-end systems, although rendering is about two times faster in Mac OS X than in Mac OS 9 on their dual-gig Power Mac G4s. But speed is about their only complaint. "The technology's there," says Gonzalez. "It's just the talent that needs to be able to control and use the vision they had on these higher-end machines to bring it down to the desktop level, to the Mac level, and still make it look like [it was done on] an Inferno or a Flame."—Cathy Lu

**While many postproduction houses are heavily invested in high-end systems, Perception is doing the same work using your basic desktop Mac.**

series called *StreetBall* that aired last fall, produced a pair of Sony Music spots for Icelandic rap-rock group Quarashi, and landed the *Sopranos* gig for HBO. That series of about 35 *Sopranos* spots (called "The Year to Watch") inundated television airwaves last fall on major networks.

Perception's philosophy is simple: Do it cheap, but make it look expensive. While many postproduction houses are heavily invested in high-end video-editing hardware by Avid and special-effects systems such as Discreet's Flame and Inferno products,

Perception is doing the same work using your basic desktop Mac and software like Apple Final

shops at a much lower price."

Take the spots Perception did for HBO, which had no shortage of cool graphics and effects. "They involved panels wiping into the frame, and each panel revealed a character from *The Sopranos*—just little slivers of faces and eyes looking out at the viewer, [little by little] building up excitement [until you see] the *Sopranos* logo. We really wanted to build it like a movie trailer and hook you in," says Lasky.

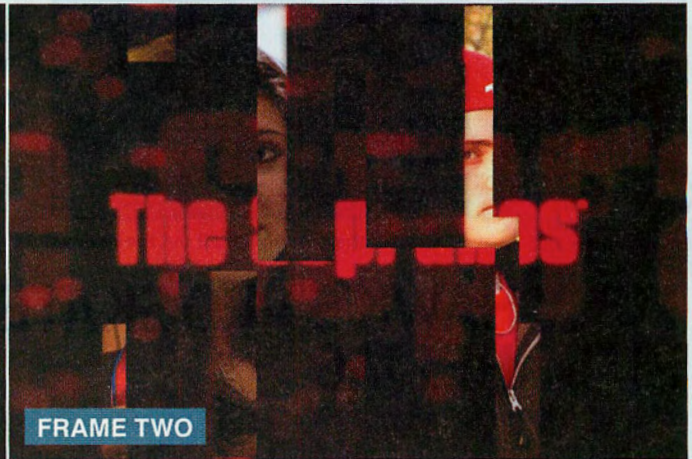
To start, HBO gave the guys Illustrator logos of network and cable providers and DigiBeta tapes containing *Sopranos*, HBO, and Cinemax video footage. Perception built the commercials from there. Gonzalez played producer; Lasky generated the





# PUTTING THE SOPRANOS BEHIND BARS

Perception's HBO spots included a cool transition effect in which bars of moving video, revealing the different *Sopranos* characters, glided in from the top and bottom of the screen. Here's how Perception used two video clips, a black-and-white animation, and a Final Cut Pro compositing trick to do it.



Here's the bottom layer of video before the transition started.

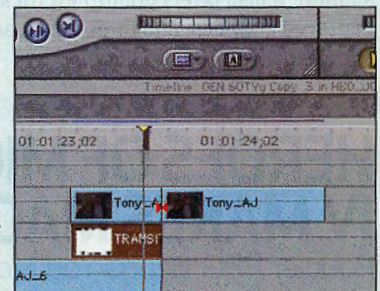
Bada bing! Here's the top layer of video showed through the transition effect.

**1** Lasky first created three movies in After Effects. One consisted of footage leading into the transition. A second movie, which formed the crux of the transition effect, was a black-and-white animation with moving bars. A third movie contained the footage you see after transition.



This set of black-and-white bars formed the crux of the transition effect.

**2** Werner brought all three movies (converted to QuickTime) into Final Cut Pro. He placed the first movie on the bottom layer of the timeline, the black-and-white animation on the middle layer, and the second movie on the top layer. Werner used Final Cut's razorblade tool to slice the top layer's movie clip. This ensured that only the beginning portion of the clip, which overlapped with the middle animation layer, would become part of the composite (see step 3).



Werner imported the three movies that formed the effect into three layers in Final Cut Pro.

**3** To composite or combine the layers in Final Cut Pro, Werner clicked the top layer and selected Travel Matte-Luma (Modify > Composite Mode > Travel Matte), which used the luminance values from the layer beneath (the black-and-white animation) to set the transparency for the top layer's moving video. Once Werner composited the layers, footage from the top layer showed through the black part of the middle animation layer, while footage from the bottom layer showed through the white part.



Werner Control-clicked the top layer of the timeline to access the Travel Matte-Luma effect from the contextual menu. Then he composited the three layers of video so that the top layer, which appears here in yellow, took the shape of the animated bars.



LAYERS ARE TINTED FOR EMPHASIS



## GAME NEWS



Aspyr, [www.aspyr.com](http://www.aspyr.com),  
\$39.99 (expected price)  
Available: December 2002

Cruise ships really go all out these days.

Score a lot of  
points. Break  
a lot of bones.

## TONY HAWK'S PRO SKATER 3 HITS THE MAC

Game 3 from the Hawk Empire

Tony Hawk hits the Mac one more time with the third installment in the megapopular skateboarding series. Playing the ultrarealistic Tony Hawk's Pro Skater 3 is as exciting as actually being in the park. Like previous versions, Pro Skater 3 includes 12 pro skater characters, a character editor, and multiplayer support. It also offers brand-new tricks, ten very large and realistic levels, greatly improved graphics, and three new team games: Capture the Flag, Control the Zone, and Keep Away. —Bryan Chaffin

## HEROES OF MIGHT AND MAGIC IV MAKES MAC DEBUT

Popular RPG Brings You Monsters and Magic

Part turn-based strategy game and part role-playing game (RPG), Heroes of Might and Magic is one of the strongest franchises in gaming, and 3DO is at long last bringing this title to Mac OS X and earlier (Classic and OS X). With a 3/4 top-down perspective, the game puts you in charge of up to eight armies on a campaign to topple an evil, immortal king. New creatures, new magic, and a new engine with multiplayer capabilities are just some of the enhancements version IV brings to this popular title.

—BC

Honey? Did you see where I put my big gateway-obelisk thing?



3DO, [www.3do.com](http://www.3do.com),  
\$49.95  
Available: Now

## ASPYR RELEASES TOM CLANCY'S GHOST RECON DEMO

Find the latest  
demo from the  
Tom Clancy series  
on the Disc.



## GAMING FOR DOLLARS

Mystery Game Offers Cash Prizes

Be the first to discover a secret bank account and walk away with at least \$62,500 in real-world money. MindQuest has put up \$250,000 in prize money for TerraQuest, a spy-thriller scavenger hunt. MindQuest is adding 10 percent of all game sales to the prize fund so that the winnings grow throughout this interactive online game, which runs in Mac OS X and earlier.

In each of the game's first five stages, a \$25,000 prize is up for grabs. In addition, ten finalists will compete for the grand prize. The winner will take 50 percent of the prize fund, while nine runners-up split the rest.

Good luck, and happy hunting. —BC



It looks like an Ikea catalog, but  
it's really TerraQuest's interface.

ON THE  
DISC  
TerraQuest 1.0 demo

## WWII ONLINE: MAC EDITION

Fight WWII with a Few Thousand of Your Closest Friends (or Enemies)

There's nothing like dogfighting in a World War II fighter plane, especially in OS X. Cornered Rat Software and Strategy First make that happen with WWII Online: Mac Edition. This OS X massively multiplayer online (MMO) game features an enormous map of Europe, realistic planes and controls, and an in-game career-path system. You can also fight from a ground vehicle or even slog it out on foot. The new Mac version also includes a foldout map of the theater of action.

—BC



Strategy First,  
[www.strategyfirst.com](http://www.strategyfirst.com),  
\$39.99 plus subscription  
Available: Now

It's a  
beautiful day  
for strafing.







WHAT WERE THE BEST PRODUCTS OF 2002? THE WORST? THE MOST IMPORTANT EVENTS? THE BIGGEST DISAPPOINTMENTS? WE *MACADDICT* EDITORS DID OUR RESEARCH, MADE OUR ARGUMENTS, RESISTED BACKSTAGE LOBBYING, AND VOTED. HERE'S WHAT WE DECIDED.

by Righteous Rik and the  
*MacAddict* Stafftones



For those star-struck worshippers of the oh-so-elegant flat-panel iMac G4 and the powerful Mac OS 10.2 (aka Jaguar), 2002 was the best of times. It was the worst of times, however, if you're one of the many who righteously inveigled against—or pathetically whined about, depending on one's point of view—Apple's decision to convert its free Mac.com email and iTools Web services into \$99 per year .Mac subscriptions.

The truth—as usual—lies somewhere in the middle. As we write this in early December 2002, we look back at a year that provided both “Oh, man!” excitement and “Aw, man!” disappointment, all taking place during a long and grinding slowdown of the entire information economy.

But pecuniary instability didn't stop us intrepid *MacAddict* editors from having opinions on every product, every pronouncement, and every event of 2002. You may agree with our opinions. You may not. It was a tough job, but somebody had to do it.

PHOTOGRAPH BY MARK MADEO

# THE BEST & WORST OF 2002



## A GREAT START

The year started with a bang. On January 7, Apple announced the 14-inch iBook, introduced iPhoto, and unveiled what turned out to be its most important hardware rollout of the year: the flat-panel iMac G4, our honoree for **Best Hardware of 2002**. Only the introduction of the Xserve in May came close to having the impact of the iMac G4. (One additional note on the Xserve: It wins our **Loudest Mac** award, although the "Wind Tunnel" Power Mac introduced in August certainly gives it a run for its money.)

Two other events marked 2002's San Francisco Expo: The first, our winner for **Most Annoying Rescheduling** was Steve Jobs's moving of his keynote from Tuesday to Monday morning, which made thousands of travelers scramble to change their plans. We didn't know it at the time, but Apple moved the speech because *Time* magazine featured the iMac on the cover of that Monday's edition. *Time* waits for no man—not even Steve. The second event inspired our **Best Hype Management** award (see p23): the seven-day buildup of teaser ads on Apple's Web site, leading up to the iMac's unveiling. These ads may have been cornball, but they did their job.

A few weeks after the San Francisco Expo, Apple made its **Least Exciting Announcement** of the year: The dual-processor Power Mac line finally "broke the gigahertz barrier"—well, reached it, at least. With Intel-based machines steaming along at well over 2GHz, and with the Mac cognoscenti fully aware that indeed megahertz don't matter, the response to the dual 1GHz Power Mac was a resounding yawn.

## BEST HARDWARE OF 2002 Flat-Screen iMac G4

Although everyone at Steve Jobs's January 7 Mac Expo keynote knew a flat-panel iMac was on the menu, none of us was prepared for the apparition that arose from beneath the stage after the Apple CEO's familiar "And one more thing..."

With the introduction of the flat-screen iMac G4, Apple again accomplished what it had done when it launched the first Mac in January 1984, the PowerBook 170 in October 1991, and the original iMac in May 1998. It redefined personal computing, leapfrogged its competition, and inspired a host of imitators. There's no doubt in our minds that the flat-screen iMac G4 richly deserves the honor of **Best Hardware of 2002**.



Company: Apple  
Contact: 800-692-7753,  
www.apple.com  
Price: \$1,199 to \$1,999  
Reviewed: May/02, p46;  
Nov/02, p53

## WORST HARDWARE OF 2002 Soundbug



The idea of this gadget is that you're supposed to fasten it to a smooth, flat surface, transforming that surface into the equivalent of a speaker. We tried—and tried, and tried, and tried—to get it to work effectively, but failed miserably. The Soundbug simply sounds—and received a rating of—lousy.

Company: Wave Industries  
Contact: 503-736-2570,  
www.soundbug-us.com  
Price: \$49.95  
Reviewed: Sep/02, p55

## BEST SOFTWARE OF 2002 InDesign 2.0

With the possible exceptions of Microsoft Office and Adobe Photoshop, no application started 2002 more firmly ensconced in its market niche than QuarkXPress.

What a difference a year makes. Adobe InDesign 2.0, the first viable alternative to QuarkXPress, offers a host of features and capabilities (like transparency and optical kerning) that make the switch not only pleasant, but also a wise business and creative decision.

And then there's OS X support. Quark recently hinted that it may delay the release of QuarkXPress 6.0—which will almost certainly be its first OS X-compatible version—until March 2003 at the earliest.

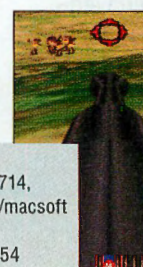
So, as we here at *MacAddict* complete our own transition from QuarkXPress to InDesign 2.0—a remarkably smooth one, we might add—we enthusiastically declare Adobe InDesign 2.0 to be the **Best Software of 2002**.

## WORST SOFTWARE OF 2002 Beach Head 2002

Despite the fact that we *really* wanted to give this dubious distinction to the unrelentingly crappy game *Survivor* by MacSoft (Apr/02, p55), we were disappointed to discover that the latter masterwork shipped in late 2001, making it ineligible for this honor. No matter. The banal *Beach Head 2002* is every bit as moronic. Oh, and it's spelled wrong.



Company: Adobe  
Systems  
Contact:  
800-833-6687,  
www.adobe.com  
Price: \$699  
Reviewed:  
May/02, p50



Company: MacSoft  
Contact: 800-229-2714,  
www.wizworks.com/macsoft  
Price: \$19.95  
Reviewed: Oct/02, p54

## TIME LINE

**JANUARY 7** Steve Jobs introduces the flat-panel iMac, the 14-inch iBook, and iPhoto; Mac OS X apps reach 2,500 in number; OS X ships on all Macs as the default OS.

**JANUARY 13** George W. Bush faints after choking on a pretzel.

**JANUARY 14** Apple announces a \$38 million Q1 profit.

**JANUARY 22** Amazon.com posts its first profit ever.

**JANUARY 28** Apple announces the Dual 1GHz Power Mac.

**FEBRUARY 3** The New England Patriots beat the St. Louis Rams in Super Bowl XXXVI.

**FEBRUARY 6** nVidia announces the GeForce4 Titanium graphics card.

**FEBRUARY 12** Apple previews QuickTime 6 and QuickTime Broadcaster.

**FEBRUARY 24** The Winter Olympics close amid a figure-skating judging controversy.

**MARCH 1** Scientists discover ice on Mars.

**MARCH 7** Alan Greenspan declares the recession over.

**MARCH 7** iPhoto downloads reach 1 million in number.

**MARCH 14** Apple introduces Remote Desktop.



# A CONTROVERSIAL MIDTERM

Apple's performance at the year's July Expo in New York was equally yawn-inducing—although the **Best Apple Store** did open during the show in New York's SOHO district. In his keynote, Steve rehashed Mac OS 10.2 (Jaguar), which he had already presented at May's Worldwide Developers Conference. To be fair, iCal, iSync, iChat, Sherlock 3, and Quartz Extreme are seriously cool, and Rendezvous is the hands-down winner of our **Most Underrated Technology** award. Still, Jaguar and its spiffy new beach ball—winner of our **Best Eye Candy** award—weren't enough to relieve our disappointment at not getting an upgrade to the Power Mac line. During Jobs's New York keynote, he also introduced iTunes 3—one of our choices for **Best Apple App** (it ties with Jaguar's Mail 1.2)—as well as the 17-inch iMac and the iPod 20GB, winner of **Best Audio Product**. Neat stuff, but hardly earth-shattering.

In fact, two other Apple announcements caused the biggest buzz at the New York Expo. The first wins our **Let 'Em Eat Cake** award: Apple's assumption that folks who had recently paid for OS X would be more than happy to fork out another \$129 for Jaguar. The second was even more inflammatory, and wins our **Most Controversial Apple Decision** honor: Apple announced that it was rolling Mac.com and iTools into its new .Mac Web service, and that it would no longer be free, but instead would cost \$99 per year. Some Mac addicts felt betrayed—many people thought Steve had promised free Mac.com accounts forever when he first announced them in January 2000. Still others thought .Mac was a smart—and

## THE BEST FROM MACADDICT READERS

Not surprisingly, some of the best things that appeared in *MacAddict* in 2002 came from our readers. From, uh, stimulating gifts to cool photos to ALL-CAPS ATTACKS, you people kept our mailroom hopping and our email in-boxes full.

### BEST GIFT FROM A READER Box of *Guide to Getting It On!* sex manuals

In September's "Staff Rants" (p10), Associate Art Director Leslie Osborn told Rik to bug off since she was on her honeymoon. Reader Paul Joannides took her commencement of conjugal bliss as his cue to send each of us a copy of his book, the *Guide to Getting It On!*, a profusely illustrated, Mac-produced encyclopedia of ecstasy. Four editors disappeared for the rest of the week.



Can we resist saying this manual helped us bone up on the subject? Apparently not.

### BEST LETTER ME BIG TRO!

When we neglected to canonize Myth as the best game ever in the "Couch Potato" section of our "Dream Machines" feature (Jul/02, p22), reader PUGNUS MAXIMUS gently chided us with a letter that read, in part, "OMG ME BIG TRO AND MB I WILL CUM AND KIK U TIL U R UTTERLY DED" (Sep/02, p95). For the record, he didn't do it—the kicking, we mean.

### BEST READER-SUBMITTED PHOTO Vince Stone's Father-in-Law

In the same issue in which P. Maximus declaimed his umbrage, we published a picture of reader Vince Stone's father-in-law guarding Vince's new G4 tower and 19-inch Samsung monitor (good choices, Vince) with some very serious firepower.



You can't help but wonder if Daddy-in-Law brought this potent peripheral to Vince's wedding.

### BEST "YOU KNOW YOU'RE A MAC ADDICT WHEN..." ITEM Proposing in AppleScript

What better way to combine one's love for one's intended with one's passion for the Mac than by programming your wedding proposal in AppleScript, as reader Joshie Surber did (Dec/02, p95)? And don't worry, the object of his affections wasn't offended—according to Joshie, "She clicked yes."

### BEST "RECENTLY SIGHTED" ITEM Bird-Poop Apple Logo

Sometimes all of nature comes together in a serendipitous expression of truth, beauty, and the Macintosh way—just as it did on the windshield of reader Mike Rosenberg's car, where he spotted the Apple logo lovingly deposited by a passing avian Mac addict (Jun/02, p12).



Hmm...Did a cadre of lawyers from Cupertino immediately impound Mike's car for trademark infringement?

### BEST TYPO SIGHTINGS

**1.25MHz and 867GHz Power Macs**  
Too many of you to count informed us that we invented two new Power Macs in our December issue, one running at the sluggardly speed of 1.25MHz (Dec/02, p4) and one blazing along at 867GHz (Dec/02, p41). FYI: We never finished rating either. The former is still struggling to complete its first Gaussian blur and the latter keeps bursting into flames.

## BEST AUDIO PRODUCT iPod 20GB

Sure, the iPod is a consumer MP3 player and not one of the host of powerful Mac products for audio pros, but, hey, it's the freakin' *iPod*! This revolutionary cigarette-pack-size device got a nice boost in the summer of 2002 with more storage, a new solid-state scroll wheel, a handy remote, and a nifty case. What's more, it's giving record execs the heebie-jeebies—and *that* we can all feel good about, right?

Company: Apple  
Contact: 800-692-7753,  
www.apple.com  
Price: \$499  
Reviewed: Nov/02, p45

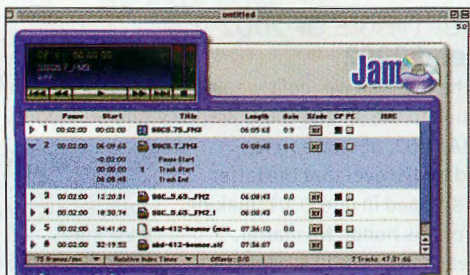


## RUNNERS-UP

### Roxio Toast with Jam 5

(\$189.95; www.roxio.com; Sep/02, p49)

This industry-standard CD- and DVD-burning software now has audio-track management, editing, and special effects.



### Digidesign Mbox

(\$495; www.digidesign.com; May/02, p59)

Any traveling—or low-budget—musician will appreciate this hardware-software bundle.



## DISSENTING OPINION

### A Case for the Digidesign Mbox

Senior Editor Kris Fong

The original iPod was awesome, but giving top honors to the 20GB version is like rewarding Anna Nicole Smith for being more, uh, capacious this year than last. The Mbox puts a Pro Tools system into the hands of Mac musicians for under \$500.



## BEST DIGITAL CAMERA

### C-4000 Zoom

If you've been waiting for a high-quality 4-megapixel camera to break the \$500 barrier, wait no more—it's time to add an Olympus C-4000 Zoom to your Visa bill. Not only does it combine great image quality with point-and-shoot simplicity, it also provides a wealth of pro-level manual controls for the day when you finally catch up to its smarts.

Company: Olympus  
Contact: 800-347-4027,  
www.olympus.com  
Price: \$499  
Reviewed: Jan/03, p52



## RUNNERS-UP

### Minolta DiMAGE 7i

(\$999; www.minoltausa.com;  
Dec/02, p44)

Fast, sharp, versatile, and well-built, this 5-megapixel camera has a whopping 7x optical zoom and all the bells and whistles you need.



### Olympus E-20N

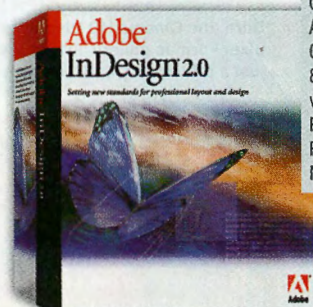
(\$1,499 street price;  
www.olympusamerica.com; Aug/02, p43)

This solidly built 5-megapixel SLR isn't for newbies—but if you know what you're doing, it will reward you handsomely.



## BEST DESIGN SOFTWARE

With its tight Photoshop and Illustrator integration, nifty transparency capabilities, easy-as-pie table creation, multiple undos, support for OpenType fonts, excellent typography tools—oh, yes, and a little detail called OS X compatibility—Adobe InDesign 2.0 is poised to become the publishing pro's tool of choice. Look out, QuarkXPress, Adobe is breathing down your neck.



Company:  
Adobe Systems  
Contact:  
800-833-6687,  
www.adobe.com  
Price: \$699  
Reviewed:  
May/02, p50

## RUNNERS-UP

### Macromedia Flash MX

(\$499; www.macromedia.com; Jul/02, p51)

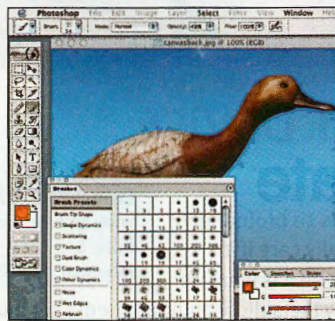
Flash began as a simple Web-animation tool. Now it's essentially an app-development environment in its own right.



### Adobe Photoshop 7

(\$609; www.adobe.com; Jul/02, p46)

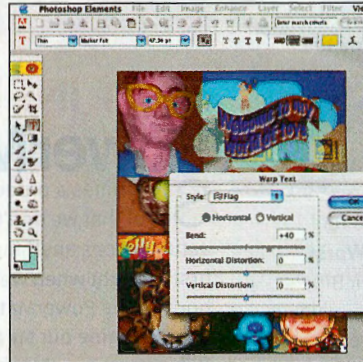
Just getting this essential app running on OS X was cool enough; adding a bunch of useful new features was icing on the cake.



### Adobe Photoshop Elements 2

(\$99; www.adobe.com; Dec/02, p40)

Such a deal! If you don't need all of Photoshop's bells and whistles, this full-featured app can save you a steaming heap of dough.



## BEST HYPE MANAGEMENT

During the week before January 2002's Mac Expo in San Francisco, the following series of cryptic come-ons appeared on Apple's Web site, hinting that Apple was planning to unveil Something Really Big. That something was the new iMac.

- DECEMBER 31 This one is big. Even by our standards.
- JANUARY 1 Count the days. Count the minutes. Count on being blown away.
- JANUARY 2 Beyond the rumor sites. Way beyond.
- JANUARY 3 It's like a backstage pass to the future.
- JANUARY 4 To go where no PC has gone before (early in the day). To boldly go where no PC has gone before (after Trekkies complained).
- JANUARY 5 Full speed ahead: Lust Factor Ten.
- JANUARY 6 Just one more sleepless night.

## DISSENTING OPINION

### A Case for Photoshop Elements 2

Associate Editor **Niko Coucouvanis**  
Yeah, Adobe InDesign's cool, but mostly because its nemesis (QuarkXPress) sucks so bad. But Adobe Photoshop Elements—It's 90 percent of Photoshop for only 16.25616 percent of the price. I mean, how many people lay out magazines, anyway?

## TIME LINE

MARCH 20 At Mac Expo Tokyo, Apple introduces the 10GB iPod and Cinema HD Display and previews Bluetooth.

MARCH 24 *A Beautiful Mind* wins the Academy Award for Best Picture.

APRIL 4 Apple acquires FireWire developer Zayante.

APRIL 5 Oprah discontinues her book club.

APRIL 5 Apple announces Cinema Tools for Final Cut Pro 3 and DVD Studio Pro 1.5.

APRIL 17 Apple announces a \$30 million Q2 profit.

APRIL 24 The Hubble telescope sets the age of the universe at 13 billion to 14 billion years.

APRIL 29 Apple introduces the eMac for the education market only and updates the PowerBook G4 line.

MAY 6 Apple previews iChat and Jaguar to developers at the Worldwide Developers Conference; Mac OS X apps reach 3,000 in number; Apple releases QuickTime 6 and Broadcaster to developers.

MAY 8 Two of Jerry Garcia's guitars sell for \$1.74 million.

MAY 8 Apple releases iPhoto 1.1.

MAY 14 Steve Jobs introduces the Xserve.

MAY 17 *One Life to Live* wins the Daytime Emmy for Outstanding Drama.

MAY 20 Apple updates the iBook line.





possibly necessary—business decision for tough times. We at *MacAddict* are split—otherwise the .Mac announcement would have won the **Worst Apple Decision** award, an honor that goes instead to the announcement in September that starting in January 2003, no new Macs will be able to boot up in OS 9. That's just wrong—and we're unanimous.

## THIRD-PARTY FAVORS

Of course, not everything in the Mac community emanates from Cupertino, and 2002 saw an avalanche of award-winners from the third-party developers and manufacturers who live and die by the Mac's fortunes.

Proving that some developers still dream big, the **Best Microsoft Office Competitor** is ThinkFree's Office 2.1 (\$49.95, [www.thinkfree.com](http://www.thinkfree.com)), a low-cost suite of Microsoft Office-compatible productivity apps. And speaking of Microsoft, **Biggest Embarrassment** honors go to that company's admission that it created a fake takeoff on Apple's successful "Switcher" ad campaign, written by a public relations flack—even the photo of this bogus switcher was a fake.

We enthusiastically award the **Best Couch-Potato Toy** to El Gato Software's EyeTV DV recorder (\$199, [www.elgato.com](http://www.elgato.com))—a great excuse for popping another brewski. The **Best PDA Bargain** is inarguably the Palm Zire (\$99, [www.palm.com](http://www.palm.com)). We also feel compelled to award the **Worst Use of USB** honor to SonicBlue's 20GB Rio Riot digital-audio player (\$349.99, [www.sonicblue.com](http://www.sonicblue.com))—let's see, transferring 20GB of MP3s at USB's top rate of 1.5 MBps would take, uh, forever?

Then there are the awards we debated whether to call **Better Late Than Never** or **Better Never**



## BEST DISPLAY Cinema HD Display

All the editors at *MacAddict* want one—except Rik (see below), though you know what a contrarian he can be. Yet only Art Director Chris Imlay has one. So when we walk past his desk, we're forced to gaze upon the Cinema HD Display's vast 1,920-by-1,200-pixel acreage, admire its brightness and color fidelity, and hate him from the depths of our petty, jealous souls.

Company: Apple  
Contact: 800-692-7753,  
[www.apple.com](http://www.apple.com)  
Price: \$3,499  
Reviewed: Aug/02, p40



## RUNNERS-UP Formac gallery 2010

(\$1,699; [www.formac.com](http://www.formac.com); Jan/03, p47)  
This 20.1-inch, 1,600-by-1,200-pixel display uses an advanced LCD technology that provides exceptional brightness and excellent color uniformity.



### DISSENTING OPINION A Case for the Formac gallery 2010

Editor in Chief Rik Myslewski

Sure, the Cinema HD Display is nice, but the 1,600-by-1,200-pixel Formac gallery 2010 is just a bit brighter, just a bit faster, just a bit smaller, and less than half the price. Buy two.

## Sharp LL-T1820

(\$1,299; [www.sharp-usa.com](http://www.sharp-usa.com); Sep/02, p56)  
This 18.1-inch, 1,280-by-1,024-pixel LCD provides rich color, and pivots 90 degrees from portrait to landscape mode.



## IMITATION IS THE SINCEREST FORM OF FLATTERY

Envy and admiration are two sides of the same coin—and the flat-panel iMac G4 has inspired its share of both.

### WORST IMAC RIP-OFF Gateway Profile 4

Gateway not only did a poor job of emulating the iMac's elegance in its kludgy Profile 4 line ([www.gateway.com](http://www.gateway.com)), but also gave the iMac free publicity in a series of weak TV ads.

### WEIRDEST IMAC RIP-OFF Lapvantage Dome

Are you an iBook user with a bad case of iMac envy? To the rescue of your fragile ego comes the Lapvantage Dome ([www.lapvantage.com](http://www.lapvantage.com)), an iMac-look-alike laptop stand that dips and swivels, all for a mere \$79.95.



### SWEETEST IMAC RIP-OFF Candy iMac

Not everyone who emulated the iMac did it for profit. Y. Sasaki created this iMac out of confectioners' sugar, and protected it in a very familiar-looking Lucite cube—or should that be Cube?



## BEST INPUT DEVICE PowerMate

Sometimes a product is so profoundly cool that we don't really care if it actually *does* anything—which is what we first thought when we saw the solidly built brushed-aluminum body of the PowerMate, and watched as its base pulsed with blue light. Imagine our surprise when we discovered that it's also a fully programmable, highly useful input device. Way cool.

Company: Griffin Technology  
Contact: 615-399-7000,  
[www.griffintechnology.com](http://www.griffintechnology.com)  
Price: \$45  
Reviewed: Sep/02, p55



## RUNNERS-UP Kensington StudioMouse

(\$59.99; [www.kensington.com](http://www.kensington.com); Oct/02, p54)

If you're a graphics professional, you owe it to yourself to get this mouse—it's preprogrammed with your needs in mind.



## Microsoft Wireless Optical Mouse Blue

(\$44.95; [www.microsoft.com/hardware](http://www.microsoft.com/hardware); Jan/03, p56)

While it may not be the trickiest mouse in Mac creation, this little three-button wireless wonder has solid software and a nice price.





## BEST PRINTER

# Stylus Photo 2200

We have a love-hate relationship with this large-format, seven-color inkjet printer. We love its astonishingly rich image quality, precise reproduction of dark and shadowy detail, subtle gradations of color and saturation, whisper-quiet operation, and versatile media handling. We hate the fact that as of press time—three months after it first went on sale—we still can't find one anywhere to buy.

Company: Epson  
Contact: 800-463-7766,  
www.epson.com  
Price: \$699  
Reviewed: Oct/02, p42



## RUNNERS-UP

### Canon i550

(\$150; 800-652-2666; www.usa.canon.com; to be featured in Mar/03)  
Great photo detail, quickie print speeds, and a decent price—you can't go wrong with the Canon i550.

### Brother HL-1870N

(\$699.99; www.brother.com; Aug/02, p45)  
Despite all the digital-imaging rigmarole, some people just want a fast, reliable, networkable laser printer. If that's you, buy this one.



## BEST STORAGE DEVICE:

# FireFly

It's sooooo cuuute! Of course, looks alone are not a sufficient reason to recommend a product, much less honor it as the best storage device of 2002. But in the case of the FireFly, its good-looking case houses a snappy, reliable 1.8-inch 5GB Toshiba hard drive (the same drive that's in the original iPod).

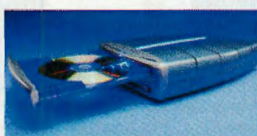


Company: SmartDisk  
Contact: 941-436-2500,  
www.smartdisk.com  
Price: \$199.99  
Reviewed: Apr/02, p51

## RUNNERS-UP

### TDK VeloCD

(\$269; www.tdk.com; Jul/02, p54)  
It's not as fast as TDK's insanely speedy 52X24X48X internal CD-RW drive, but this 24X10X40X FireWire drive is as solid as they come. Plus, it's got a cool blue light that flashes when the device is in use. Sweet.



### Maxtor Personal Storage 5000XT

(\$399.95; www.maxtor.com; Feb/03, p44)  
This drive provides extraordinary 250GB capacity, and adds the convenience of a One Touch instant-backup button.



## DISSENTING OPINION

### A Case for the Maxtor Personal Storage 5000XT

**Executive Editor Cathy Lu**  
Hellooooo...250GB? Automatic backup just by pressing a button? FireWire and USB 2.0? How can the Maxtor drive not be the best storage device of the year? You guys are knee-deep in Kool-Aid.

## BEST SYSTEM

# Flat-Panel iMac G4

It's fitting that Apple launched the flat-panel iMac G4 during its "Think Different" days and that the iMac remained its flagship consumer-level Mac during the "Switcher" campaign. Apple's engineers were clearly thinking quite differently when they conceived of its design, and it has compelled more than its share of peecce owners to make the move up to Mac.

WINNER  
BEST  
HARDWARE  
2002



Company: Apple  
Contact: 800-692-7753,  
www.apple.com  
Price: \$1,199 to \$1,999  
Reviewed: May/02, p46; Nov/02, p53

## RUNNERS-UP

### Apple Dual 1.25GHz Power Mac G4

(\$3,299; www.apple.com; Dec/02, p41)  
Okay, so it's loud—but thanks to a revamped system architecture, it's also the fastest thing ever to come out of Cupertino.



### Apple Xserve

(\$2,999 to \$7,199, www.apple.com; Nov/02, p43)  
Never thought you'd see an Apple logo on a rack mount in the server closet, did you? Apple's moving into IT in a big way.



TIME  
LINE

MAY 29 FireWire becomes the official name for IEEE 1394.

JUNE 4 Apple makes the eMac available to consumers and releases a QuickTime 6 public preview.

JUNE 10 Apple announces the "Switcher" ad campaign.

JUNE 30 Brazil beats Germany 2-nil in the World Cup 2002.

JULY 1 Apple acquires audio developer Emagic.

JULY 3 Maryland game officials declare war on snakeheaded fish.

JULY 16 Apple announces a \$32 million Q3 profit.

JULY 17 At Mac Expo New York, Apple announces .Mac, the 17-inch iMac, and iTunes 3; previews iCal, iSync, Jaguar, and Jaguar Server; and upgrades the iPod.

JULY 22 Apple announces Shake 2.5.

JULY 24 The Marquis de Lafayette, dead for 168 years, is granted U.S. citizenship.

AUGUST 9 Barry Bonds hits his 600th career home run.

AUGUST 13 Apple upgrades the eMac and iMac and announces the "Wind Tunnel" Power Mac G4 line.

AUGUST 17 Milk Money Millionaires win the 2002 Adult Kickball Championship.

AUGUST 23 Jaguar ships.

SEPTEMBER 3 McDonald's announces a switch to healthier fries.





**Than Late.** In the software category, QuarkXPress 5.0 (\$899, [www.quark.com](http://www.quark.com)) gets the former sobriquet; in the hardware category, the Iomega 750MB Zip FireWire external drive (\$169.99, [www.iomega.com](http://www.iomega.com)) gets the latter one.

Speaking of hardware-software splits, Adobe Photoshop 7's miraculous healing brush wins **Most Welcome Feature: Software**, while the **Most Welcome Feature: Hardware** award goes to the headphone jack on the front of the "Wind-Tunnel" Power Macs. Now how's about a FireWire port there, Apple-onians? We do have these iPods and DV cameras, y'know?

Other awards include **Best Mac-First Game** for Ambrosia Software's Escape Velocity: Nova (\$30, [www.ambrosiasw.com](http://www.ambrosiasw.com)); **Most Cryptic and Hard-to-Decipher Icons** for Macromedia's reworked product line; **Best Software Bundle** for Digidesign's Digi 002 (\$2,495, [www.digidesign.com](http://www.digidesign.com)), which includes not only Pro Tools LE, but also another \$2,200 worth of seriously cool plug-ins; and **Best Price Drop** for Alias|Wavefront's (www.aliaswavefront.com) reduction of 3D powerhouse Maya from \$7,500 to \$1,999 (oooh, almost an impulse buy).

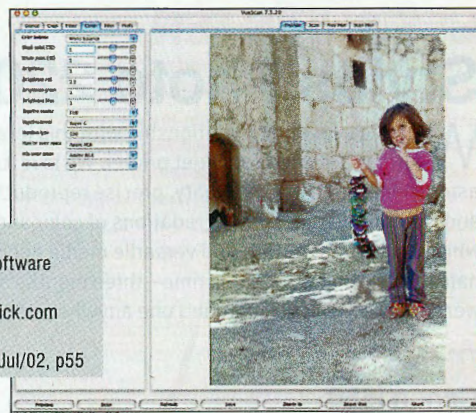
Finally, the **Sylvester Stallone Prememorial Award for Successfully and Effectively Milking a Great Idea for an Enormously Long Time** goes to Aspyr (www.aspyr.com) for The Sims series. This year saw the release of The Sims Hot Date, The Sims Vacation, and The Sims Unleashed (\$29.95 each), and we can only hope that the future brings The Sims Crack House, the Sims Assisted Living Center, and The Sims Interminably Long and Painfully Boring School Concert Where All Your Kid Does Is Sing One Lousy Song in the Chorus Near the End.

With all that to look forward to, 2003 promises to be a very good year indeed.

## BEST UTILITY VueScan

We're willing to bet that Ed Hamrick has saved more than one scanner user from either suicide or homicide. His VueScan driver software (up to version 7.5.62 at press time) enables otherwise unsupported scanners to work in Mac OS 9 and OS X, and offers features absent from the drivers provided by the scanner manufacturers. Ed, you're our hero.

Company:  
Hamrick Software  
Contact:  
[www.hamrick.com](http://www.hamrick.com)  
Price: \$40  
Reviewed: Jul/02, p55

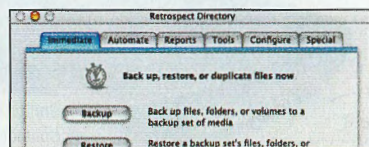
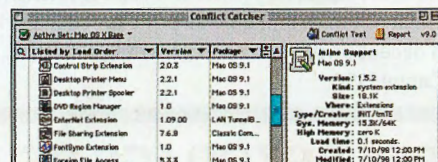


## RUNNERS-UP

### Casady & Greene Conflict Catcher 9.0

(\$59.95; [www.casadyg.com](http://www.casadyg.com); Jun/02, p52)

If you're still mired in OS 9's world of extension wrangling, you'd be crazy not to have a copy of Conflict Catcher. It's that good.



### Dantz Retrospect 5.0

(\$49 to \$799, [www.dantz.com](http://www.dantz.com); Aug/02, p50)

No one ever said it was elegant, easy to use, or anywhere near fun, but everyone knows it's essential for backing up your precious data.

## BEST "SWITCHER" ADS

After a couple of years of thinking different—and driving copy editors and English teachers crazy by omitting the adverbial "ly"—Apple announced on June 10 that it was launching an ad campaign that featured real people talking about their real experiences in switching from a peecce to a real personal computer.

"I don't follow instructions well."



### CLASSIEST Yo-Yo Ma

The "I'm just a nontechnical schlub" shtick has been done to death—but when it comes from such a classy guy as cellist Yo-Yo Ma, it works.

"And it was, like, bleep-bleep, bleep-bleep, bleep-bleep-bleep...and I was, like, hnnnn?"



### LEAST CLASSY Ellen Feiss

An entire subculture has grown up around student Ellen Feiss (a Google search yields well over 6,000 results), with the debate centering on whether her red eyes are the result of a recent blunt, spliff, or simple beer-bong blast.

"I like to do a lot of home-movie stuff with Final Cut Pro."



### BEST IMAGE UPGRADE Tony Hawk

The national image of skateboarders changed from slob to suave when ruggedly handsome Tony Hawk, professional skateboarder, turned out to be one of the most articulate members of the "Switcher" community.

"It's a great brain. The Mac, baby."



### HIP(HOP)EST De La Soul

We know the Mac is the only choice for professional musicians. You know it too. Now, thanks to Posdnuos, Trugoy, and Mase, everybody does. Side benefit: Even Granny in Poughkeepsie can see that not all rappers are gangstas.

"I like to be spending time making pets happy and healthy."



### MOST BELIEVABLE Mark Gibson

Some early "Switcher" ads stretched the truth a bit (we certainly wouldn't want police officer Andy Skowronski testifying against us in a court of law), but when kindly Dr. Gibson simply tells us his Macs make him more productive, we believe him.



## BEST VIDEO SOFTWARE (TIE)

# Xpress DV and Combustion 2

Usually a tie is a cop-out—but not in this case. Though these two products are as different as night and day, they're both top-notch. Avid Xpress DV goes beyond Apple's Final Cut Pro 3 (and that's saying something) to provide customizable real-time effects and color correction, and Combustion 2 provides paint, animation, and 3D-compositing capabilities that are nothing short of astonishing. By the way, this category would have been an even tougher call had Final Cut Pro 3 shipped in 2002. But it didn't (it shipped in December 2001), so we're off the hook.

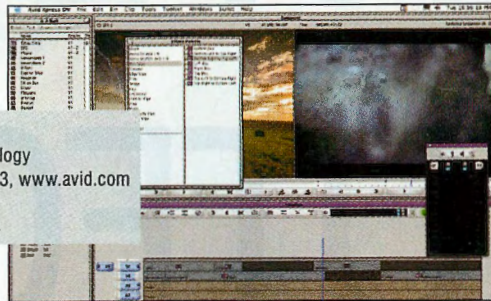


### Combustion 2

Company: Discreet  
Contact: 800-869-3504,  
www.discreet.com  
Price: \$4,995  
Reviewed: Jun/02, p46

### Xpress DV

Company: Avid Technology  
Contact: 800-949-2843, www.avid.com  
Price: \$1,699  
Reviewed: Jan/03, p44



## RUNNER-UP

### Apple DVD Studio Pro 1.5

(\$999; www.apple.com; Oct/02, p55)

Sure, iDVD is cool, but if you're putting together a pro-level DVD, you need a pro-level tool—like DVD Studio Pro 1.5.

## BEST GAME (TIE)

# Medal of Honor: Allied Assault and WarCraft III: Reign of Chaos

### Medal of Honor: Allied Assault

Company: Aspyr  
Contact: 888-212-7797,  
www.aspyr.com  
Price: \$49.95  
Reviewed: Oct/02, p43



### WarCraft III: Reign of Chaos

Company: Blizzard  
Entertainment  
Contact: 800-953-7669,  
www.blizzard.com  
Price: \$59.99  
Reviewed: Dec/02, p48



Again, we have a tie, and again, it's because we couldn't justify picking one over the other. In Medal of Honor, WWII isn't about saving Private Ryan, it's about saving your own sorry ass. The game pits you against what seems like the entire Third Reich as you try to survive a series of life-or-death missions, including a harrowing landing on Omaha Beach.

Fans of Blizzard's WarCraft and StarCraft games waited a long time for WarCraft III: Reign of Chaos, and the company didn't disappoint. The game is a big step up from its predecessors, with improved resource management, great sound and graphics, and a refined sense of humor.

### DISSENTING OPINION A Case for Jedi Knight II: Jedi Outcast

Trust me—the editors here are out of their gourds. I'll set you straight. While Medal of Honor is essentially another iteration of the same old ground every FPS has covered (we've already played WWII mods in Unreal Tournament), Jedi Knight II takes the genre to the next step by adding a bevy of cool Force powers, which are much more of a thrill than yet another set of new, uh, I mean old guns.

## RUNNERS-UP

### Aspyr Return to Castle Wolfenstein

(\$49.95; www.aspyr.com;  
Aug/02, p42)

In this addictive shooter, your job is to kill not just Nazis, but zombie Nazis in either single-player or multiplayer mode.



### MacSoft Max Payne

(\$49.95, www.wizworks.com/  
macsoft; Dec/02, p42)

Life's tough for Max—both druggies and cops are on his tail. Good thing he has a way-cool slow-motion mode in which he can blast 'em.



### Aspyr Jedi Knight II: Jedi Outcast

(\$49.95; www.aspyr.com; Feb/03, p37)

This smart Star Wars shooter has enough fast-paced action to keep your adrenaline flowing and your trigger finger twitching.



## TIME LINE

SEPTEMBER 5 The first "Switcher" ads appear on the air.

SEPTEMBER 10 iCal ships.

SEPTEMBER 10 Apple announces OS X-only booting starting in January 2003.

SEPTEMBER 17 Mac subscribers reach 100,000 in number.

SEPTEMBER 30 Apple releases an iSync public beta.

OCTOBER 1 Mac subscribers reach 180,000 in number.

OCTOBER 15 QuickTime 6 downloads reach 25 million in number.

OCTOBER 16 Apple announces a \$45 million Q4 loss.

OCTOBER 17 Apple offers Jaguar for free to K-12 teachers.

OCTOBER 27 The Anaheim Angels win the World Series against the San Francisco Giants in seven games.

NOVEMBER 6 Apple updates the iBook and PowerBook G4 lines; the PowerBook G4 reaches 1GHz.

NOVEMBER 7 After battling with IDG over the East Coast Mac Expo fiasco, Apple says it will participate in San Francisco's 2003 Expo.

NOVEMBER 12 Bling-bling gets added to the Oxford English Dictionary.

DECEMBER 5 IDG cancels Mac Expo Tokyo after Apple and other big wigs drop out.

DECEMBER 9 MacAddict's "Best and Worst of 2002" goes to press.

Righteous Rik and the MacAddict Stafftones will be on tour this summer following the release of their first CD, "One Click Beyond," which was, of course, produced entirely on a Mac.



# TO SERVE AND PROTECT

## Inside Mac OS X Server

If you're looking for serious advice about setting up a serious server, look no further. Seriously. We walk you through the ins and outs of Apple's Mac OS X Server, Jaguar edition. *by Niko Coucouvanis*

You've heard Steve Jobs's rap: Mac OS X combines the battle-tested networking power of Unix with the legendary ease of use that makes Macs so darn lovable. Mac OS X Server takes that equation to the next level, making network management and system administration as easy as setting up an iTunes playlist.

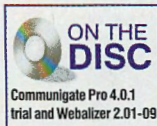
Great. But since all the networking power of OS X lurks inside each and every copy of Jaguar, why shell out at least \$370 more for OS X Server?

It's all about power, baby, power.

OS X's Directory Access and the Accounts and Sharing preference panes work great for a few users (say, a family or a small office), but getting a dozen users hooked up and administering all of them can be a drag. That's where OS X Server comes in. It provides the tools to point-and-click your way to big-time server management and network administration—tools you can use directly on the server via an attached keyboard, mouse, and monitor; remotely from a Mac or terminal in the next room; or from across the continent over the Internet.

Here we provide you with a primer on OS X Server—how

to install it, set it up, manage users and workgroups, and get your very own Web, mail, print, or FTP server up and running. Still not ready to invest in OS X Server? No worries: We also show how you can squeak by with just OS X.



## MAC OS X SERVER

**COMPANY** Apple (800-795-1000 or 408-996-1010, [www.apple.com](http://www.apple.com))

**PRICE** \$499 for ten-client license, \$999 for unlimited-client license, \$2,999 and up for unlimited-client license and an Xserve

**HARDWARE REQUIREMENTS** Power Mac G3 or G4, Power Mac G3 or G4 Server, iMac, eMac, or Xserve; 128MB of RAM; 4GB of free disk space

**INCLUDED SOFTWARE** Mac OS X Server 10.2, WebObjects 5.1, Admin Tools, Macintosh Manager 2, Mac OS X Developer Tools, NetBoot

Note that OS X Server won't run on a laptop; it will happily lock up your PowerBook or iBook requiring that you reformat the hard drive and install a supported Mac OS. But although you can't install OS X Server on your laptop, you can easily deputize your trusty 'Book as an administrator machine. The Admin Tools CD in the OS X Server package installs the all-powerful server apps, which you can use from any Mac capable of running OS 10.2.



# MAC OS X SERVER BASICS

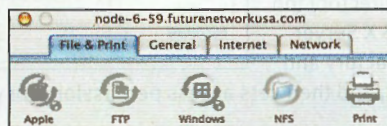
Mac OS X and OS X Server share the same Mac OS and Unix parentage and bear more than a passing resemblance in form and function. So what's the difference? One word (well, two): power tools.

Both flavors of Mac OS X include proven Unix apps like the Apache Web server, plus support for a veritable alphabet soup of networking protocols (see "ABCs of Networking," right). The difference between plain vanilla OS X and OS X Server is that the latter provides friendly integrated apps (à la iTunes) to tame these acronymical beasts. These are the apps you get when you buy OS X Server:

**Open Directory Assistant** Part of the proud family of Mac OS Assistants, this one autolaunches after you finish with the OS X Server Assistant. You can (and will) use this app again to set up NetInfo or LDAPv3 directory domains and password servers on the local server or to configure connections to remote directory information—even Windows Active Directory domains.

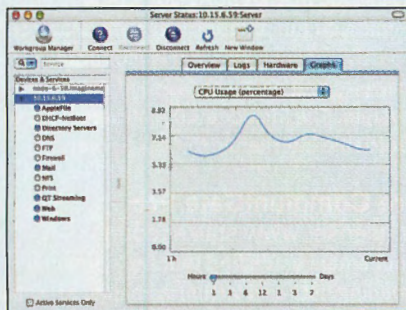
**Workgroup Manager** Use this app to designate share points and sharing protocols; create user, group, and computer accounts; set access, mail, and print privileges for accounts; and manage preferences for all of the above. (Good old Macintosh Manager, which comes with OS X Server, handles these chores for Mac OS 8 and OS 9 clients.)

**Server Settings** Your OS X Server service-control center, Server Settings is where you start, stop, or tweak the configurations of any service (Mail, Web, DNS, DHCP, FTP, File, Print, and so on).



You can control all of OS X Server's services remotely via the Server Settings window.

**Server Status** Server Status displays hardware stats, software logs, and usage information for every active service on every connected server over which you have admin privileges. Server Status is tightly integrated with Workgroup Manager, so you can wield the iron fist of administration by clicking the Workgroup Manager button in the Server Status window's toolbar.



Server Status is a geek's delight—you can view your CPU usage or network traffic as a time chart!

**Server Monitor** This handy application gives a status report on your Xserve (if you have one), detailing information such as the server's IP address and OS version, uptime, serial number, and power consumption. Server Monitor also

## ABCs of Networking

**AFP** *Apple Filing Protocol*, Mac OS X's native file-sharing protocol.

**SMB** *server message block*, Windows' default file-sharing protocol.

**DHCP** *dynamic host configuration protocol*, a networking protocol that temporarily assigns IP addresses to computers on a network.

**SSH** *secure shell*, a secure Unix protocol for logging into a remote machine.

**FTP** *file transfer protocol*, a ubiquitous Internet file-sharing protocol.

**SSL** *secure sockets layer*, the standard protocol for securely sending data via email or the Web.

**NFS** *network file system*, a popular Unix-based file-sharing protocol.

**WebDAV** *World Wide Web distributed authoring and versioning*, a protocol that adds write privileges to http, enabling collaboration over the Internet.



Server Monitor knows your Xserve inside and out.

provides vital stats on the machine's internal ambient and processor temperatures, as well as the status of the blowers (fans) and hard drives, including whether you've got the Xserve's Enclosure Intrusion (aka drive-bay lock) enabled.

**Streaming Server Admin** QuickTime Streaming Server is part of the OS X Server installation, which is pretty cool when you consider that just two years ago Apple was selling it stand-alone for \$499.

Now that you know what's in the Mac OS X Server box, it's time to install it. If you bought an Xserve, OS X Server comes preinstalled, so you can get right down to the business of configuring the beast. If you're upgrading or installing your first version of OS X Server, it's just like any other Mac OS install—insert CD, start Mac from CD, follow onscreen prompts. The server will restart after installation finishes.

If you've ever fired up a brand-new Mac or installed the Mac OS, you know about the Setup Assistant—in an abbreviated 20-question session, it prompts you for relevant information as it applies the necessary settings for the Mac and its network, Internet, and printer connections. The OS X Server equivalent, the Server Assistant, makes setup and configuration of your server just as easy.



## MICROMANAGEMENT MADE EASY

Setting up file sharing, mail, and print services on a mixed-platform network used to be a system administrator's nightmare—but Server makes it easy. Here we'll illustrate how to set up workgroups with an example near and dear to our hearts.

Here at MacAddict, we've got editors and artists, each with different needs. The art department needs access to the color laser printer and doesn't want to wade through all the editors' crap to find art files. Conversely, we need to restrict the editors to the low-end printers (lest they waste all the color laser printer's toner on party invitations...again) and grant them sole access to a top-secret file server to keep sensitive articles in progress away from the blabbermouth art staff. Yet both groups need access to central items such as the production schedule and the lunchroom menu.

OS X Server's included Workgroup Manager makes it easy to handle the drudgery of creating users, groups, and share points (directories that can have multiple users), and keeps all the mail and print settings, as well as user and group preferences, within quick reach.

You can create all your user home directories right on the network server or on any connected machine under your administrative authority. Consider distributing user home directories across multiple machines if you have or anticipate having a lot of users—even a Dual 1GHz Xserve on a fast network will feel the strain eventually. If security is crucial, keep home directories on a server in a locked room with no monitor or keyboard attached. This paranoid move will prevent someone from booting a client machine from an OS X CD and having free reign over it.

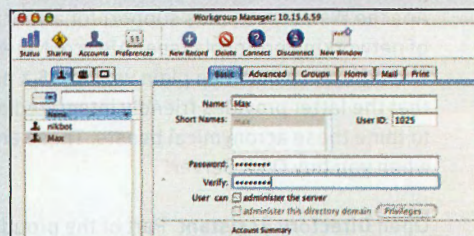
If security's not crucial, you can fit several users' home directories on a shared client machine. For example, here at MacAddict Galactic Headquarters, we keep common files on the server, and we all maintain our own machines with local home directories. We can't have more than one user per Mac because we're all always here. We have no other lives. Sad, really.

## Create New Users

The Setup Assistant created the first user for you. Use Workgroup Manager to create more.

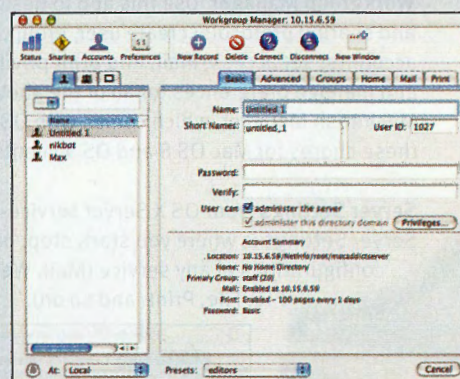
**1** Open Workgroup Manager and connect to the server by entering its IP address.

**2** Click the Accounts icon and then New Record, and enter the name and password, basic privileges, home directory, and mail and print settings you want. Save the record.



**3** Before adding more users, select Save Preset from the Presets pop-up menu at the bottom; this creates a template of common settings for the other new users.

**4** Select the new preset you created in the Presets menu and click the New Record button. Enter a user name, password, and any other specific settings, like home directory and mail and print quotas. If you opt for a local home directory (on the server), OS X Server creates the directory and subdirectories, and then sets access permissions for you.



You can repeat this process until you've got a roster full of users—and remember, you can save multiple presets. Also, after you create users, you can modify multiple accounts simultaneously by Command-clicking their names in the list of users.

## Third-Party Power Tools

Here are some other server admin tools to consider.

### Tenon Intersystems iTools 6.5.7

(\$399, [www.tenon.com](http://www.tenon.com))

Tenon has been playing alchemist with Mac OS and Unix for more than a decade, and its latest suite of server tools makes administrating an Apache Web server easier than ever. iTools provides DNS service, virtual hosts, Web-browser-based configuration, SSL support, access control, local and Web-based email, and more—all in a handy browser interface that lets you tweak your server from anywhere over the Internet.

### 4D Webstar V

(\$299 including 100-user 4D Mail, [www.webstar.com](http://www.webstar.com))

Webstar V doesn't manage OS X's Apache Web server but replaces

it. The Webstar plug-in architecture means server extras like FTP, SSI, FastCGI, and WebDAV don't require any config-file hacking—just add the plug-ins you want. Many services run faster this way, partly because Webstar is multithreaded and multiprocessor aware, and partly because of the server's advanced caching system. The included 4D Mail server makes this a robust and affordable alternative to OS X Server.

### Stalker Software CommuniGate Pro

(\$499 for 50-user license, [www.stalker.com](http://www.stalker.com))

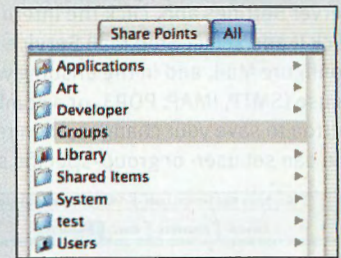
If you're serious about email, you'll find that OS X Server's lack of support for mailing lists and virtual domains, as well as its limited SSL, just don't cut it. CommuniGate Pro is the gold standard for email on more than 25 different server platforms, including OS X, OS X Server, and Mac OS 9 and earlier.



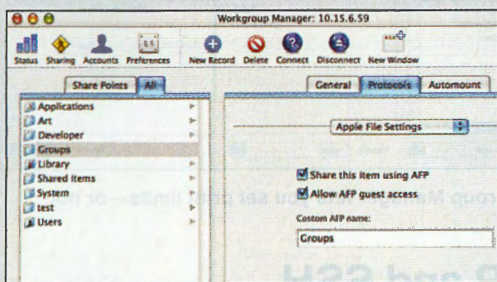
## Group Specs

Workgroup Manager makes it easy to regulate your users' access to directories, services, and system resources. First you must designate the *share point*, a directory on the server that authorized users can access remotely. If you create your home directories on the server, they'll appear in the Users folder—a predefined share point—unless you manually locate them someplace else.

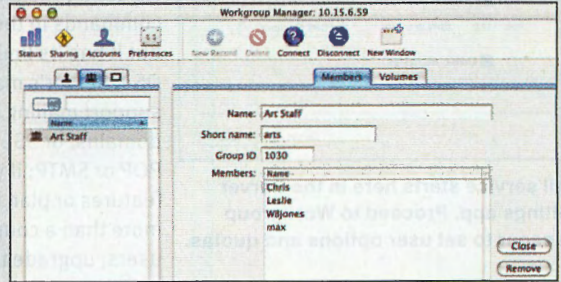
1 Click the Sharing icon and then the All tab to reveal a list of server volumes, which you can navigate through to the folder you want to share. Sweet! The Groups folder is already designated as a share point. You could make any directory a share point, but consolidating shared folders in one accessible location makes the network more manageable, even in MacAddict's little two-group outfit.



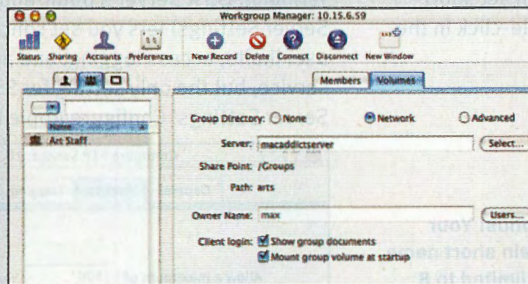
2 Proceed to the Protocols pane to make sure you're sharing the folder with AFP. You can also tweak Windows, FTP, and NFS settings.



3 Once you establish your share point, you can create the groups. Click the Accounts icon. Click the tab with the groups icon and then the New Record icon, and type in the group name—in our case, *Art Staff* (arts for short). Click the Add button to open the list of users and drag names you want to include into the Members area—or just double-click the names to add them.



4 Click the Volumes tab. Pick Network as the Group Directory location, then enter the name of the server or click Select to pick it from a list. Note that Workgroup Manager creates a path using the group's short name. It does the same for new user accounts if you set them up to have home directories on the server, and it even creates the network directories for you...eventually (see step 5).



5 Workgroup Manager creates the directories automatically, but for some reason Apple decided to make it an overnight process. If you want to set up the directories immediately, you can do so with one little Terminal command. At the Terminal prompt, type the line `sudo /usr/sbin/CreateGroupFolder` and enter your password. Your humble author is now locked out of the important art folders—even though he just created the group.



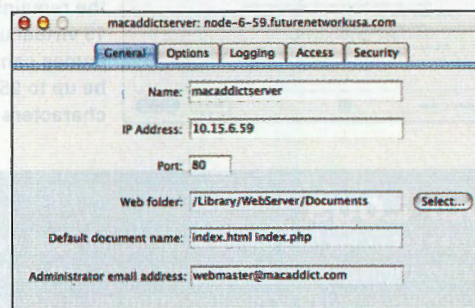
## OTHER SERVICES

Workgroup management may be OS X Server's strong point, but other services, including Web, mail, FTP, and print, are just as easy to set up. Once you enable these services, you must go back to Workgroup Manager to configure them for users and groups.

### Web Service

For simple Web serving, OS X Server may well be more than you need. Both OS X Server and OS X regular-schmo edition come preloaded with Apache, the most widely used Web server out there. On either system, you just turn it on. In OS X proper, you do so via Web sharing in the Sharing Preferences pane. In OS X Server, you go to the Internet pane of the Server Settings app and select Start Web Service.

You can use Server Settings and Server Status to keep your Web server happy and well groomed—for the most part, anyway. Server Settings gives you easy control over SSL security, basic



Back here in the Server Settings site-configuration window, we can tweak some more settings, but most of the Apache configuration still requires command-line hacking.

WebDAV access, log archiving, and other services. But even in OS X Server, you'll eventually want to do something that isn't available via point-and-click, like customize your "404: Page Not Found" error message (see "Web Serving the Mac OS X Way," p33) or analyze your access logs. This type of chicanery requires digging into Apache's config file or installing third-party software for log analysis (see "Check Your Logs," p32).



# X TO SERVE AND PROTECT

## Mail

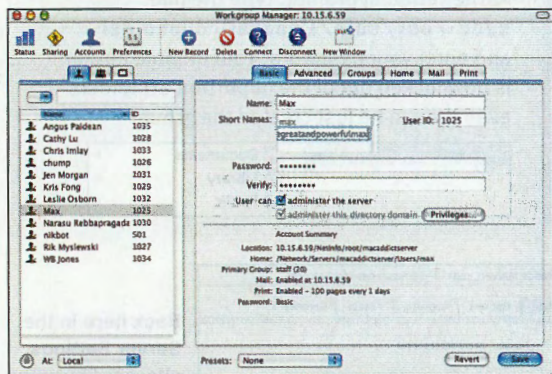
Like all of OS X Server's core services, mail is a snap to manage. In the Server Settings app, click the Internet tab. If the Mail icon is flagged on, click it and select Stop Mail Service from the pop-up menu. Next, select Configure Mail, and in the ensuing window, select the protocols you want to use (SMTP, IMAP, POP3, or a combination thereof). Click the big Save button to save your changes, then restart mail service in Server Settings. You can set user- or group-specific settings in the Mail pane of Workgroup Manager



Mail service starts here in the Server Settings app. Proceed to Workgroup Manager to set user options and quotas.

mail server (see "Third-Party Power Tools," p30).

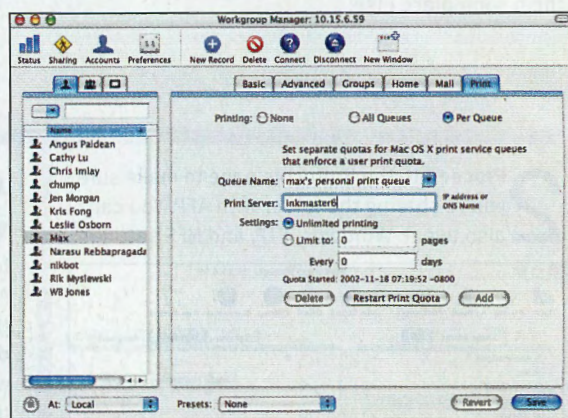
A user's long name (Joe Smith, for example) defines his mailbox, and each user can have only one. Email addresses, however, are based on the user's short name, of which you can have 16 per user. Each of these 16 virtual user names (jsmith, joe, smithy, stinky, and so on) gets an email address, but all the mail goes into the main mailbox. You can set short names in the user record in Workgroup Manager—just double-click in the space below a virtual user name to add another one.



**Bonus! Your main short name is limited to 8 characters, but the remaining 15 virtual user names can be up to 255 characters long.**

## Print

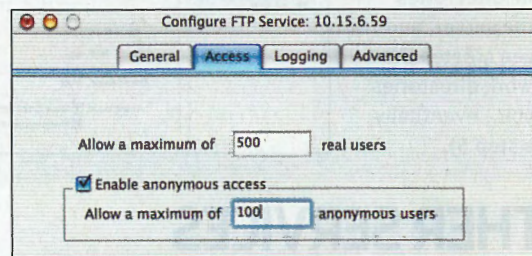
Print service is another push-button affair in both OS X and OS X Server. Server lets you set up multiple print queues via Workgroup Manager, with individual quotas per queue and per user. Terminal geeks can duplicate this via the command line in OS X, but Print Center's Stop Jobs button (no, not Steve) is the next best thing.



Workgroup Manager lets you set print limits—or not.

## FTP and SSH

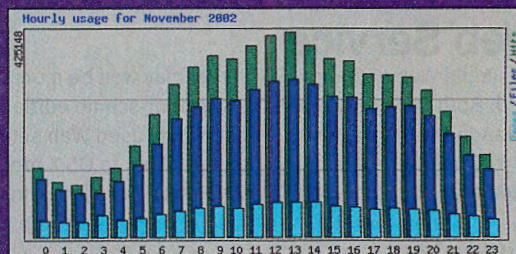
In OS X proper, you turn on these services in System Preferences' Sharing pane, and any further configuration—access logging, anonymous access, maximum simultaneous connections—is up to you and the Terminal. OS X Server's point-and-click configuration (aka Server Settings) lets you set concurrent and anonymous user limits, access logging, and authentication for FTP service, but the only setting for SSH is on or off, via Server Settings' Configure Apple File Service window.



Mac OS X Server's FTP service is first-class, but secure SSH is strictly no-frills.

## Check Your Logs

The Apache Web server keeps log files on file requests (hits), as well as errors (misses that occur when the requested file doesn't exist). Left unchecked, these logs can become server-bloating files (we're talking gigabytes of data) on a busy site. OS X Server users flip a switch to cycle and archive these logs, but OS X users are on their own. Enter The Webalizer ([www.mrunix.net/webalizer](http://www.mrunix.net/webalizer)), a free utility that not only manages your logs but breaks them down to the minutiae—hits per page, per hour, even per country—and creates bar graphs and pie charts for the more general stats, such as total hits per day. Mac OS X Server doesn't do any of that, nor does it report referrer stats on the Web sites from which your visitors originate.



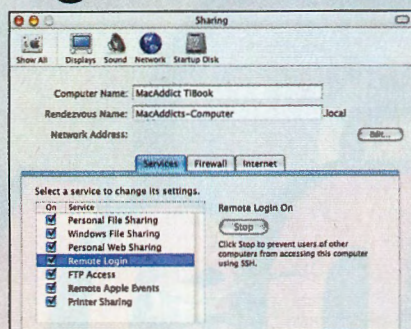
Webalizer turns miles of log-file text into easily digestible graphical chunks.



# Web Serving the Mac OS X Way

The secret's out: OS 10.2 (Jaguar) is every bit as multilingual and generous with the services as its Server kin—it just doesn't provide anywhere near the level of configuration, monitoring, and maintenance options.

Still, there are workarounds. Take OS X's Apache Web server, for example: Once you click Personal Web Sharing in the Sharing Preference pane, the rest is up to you and Apache's config file. Following this example, you can find and tweak all kinds of Apache settings.



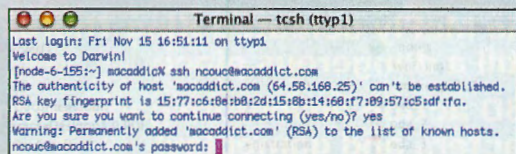
Turning on services in Mac OS X is a piece of cake.

## Remote Log-in

Apache is great as is—it's preconfigured to find your Web documents in the Library > WebServer > Documents folder and serve them up as the root level of your Web site. It's also preconfigured to run Perl or CGI scripts if you want to host interactive widgets, such as opinion polls or message boards, on your site. Ah, but it has so much more to offer.

Tweaking Apache's config file is the only way to modify a Web server in OS X. Any modifications you make to the config file don't take effect until you restart the server. That's no problem if the machine is sitting on your desk—just uncheck and recheck the Personal Web Sharing box in the Sharing Preferences pane—but you can't do that remotely. That's what Remote Login (aka SSH) is for.

You can download an SSH client, but we feel tougher just using OS X's Terminal. To log in to your server remotely, just type `ssh username@website.com`, where *username* is your user name and *website.com* is—you guessed it—the name of your Web site. If the DNS gods aren't smiling on you, you can use the IP address of the server you're trying to log in to, and type `ssh username@IP address`—this works provided you've enabled Remote Login. Ignore any gobbledygook about authenticity and RSA keys, enter your password at the prompt, and you're in. Now you can bend Apache to your will.



GUI tools are cool, but command-line jockeys get all the chicks.

## Stay Current

The `.shtml` extension tells the server that a page uses an SSI (server side include) directive to include a virtual link in the page, which effectively sucks the contents of one file into another. You can use this technique to stoke a Web page with up-to-the-minute results from your site's opinion poll or current news from a headline-ticker service.

In its default state, Apache only recognizes HTML files. To enable SSI, search for `include` and `shtml` in your `httpd.conf` file. This will lead you to the appropriate sections in `httpd.conf`, where the basic instructions should be enough to get you set up.

## Find a Better "404 Error: Page Not Found" Page

When you ask a Web server for a file it doesn't have, it returns some version of the all-too-familiar "404 Error: Page Not Found" message. This is all well and good, but the default error page is stark at best. Why not display something more useful, like a site map or search page where users can easily find what they're looking for?



You can make your 404 page a work of art—just like this Dutch master from 404lounge.net.

**1** Use the Terminal to access the server with SSH. For example, type `ssh nikbot@macaddict.com` and enter your password at the prompt. Also, you should back up the file `httpd.conf` just in case. To do that, type `sudo cp /etc/httpd/httpd.conf /etc/httpd/(space) httpd.conf.1`. This tells the system to copy (cp) the `httpd.conf` file in the `/etc/httpd` directory; `sudo` tells it you're authorized to act as *superuser*.

**2** Open `httpd.conf` in your favorite text editor—we used Pico, the bare-bones editor included with OS X. Type `sudo pico /etc/httpd/(no space) httpd.conf`.

**3** To find the 404 section, press Control-W and enter **404** at the Search prompt.

**4** Delete the pound sign (#) to uncomment the local redirect option.

```
# 1) plain text
ErrorDocument 500 "The server made a booboo.
# n.b. the single leading (") marks it as text, it does not get output
#
# 2) local redirects
#ErrorDocument 404 /missing.html
# to redirect to local URL /missing.html
#ErrorDocument 404 /cgi-bin/missing_handler.pl
# N.B.: You can redirect to a script or a document using server-side-includes.
```

**5** Change `missing.html` to the name of the file you want lost souls on your site to see.

**6** Type Control-X to close the file and type **Yes** at the prompt to save the changes.

**7** Restart Apache by typing the following:  
`sudo apachectl restart`  
If you need a little inspiration, check out [www.404lounge.net](http://www.404lounge.net), a Web site dedicated to the art of the vanity 404-error page.



Niko Coucouvanis was born in the desert and raised in a lion's den. His number one occupation is messing with OS X.





# BUGDOM<sup>®</sup> 2



It has been 3 years since Rollie McFly defeated King Thorax, but the Bugdom is still a dangerous place.

Bugdom 2 is an entirely new 3D action-adventure game with all new levels, characters and gameplay!

For Mac OS X and 9!

Available for download or on CD  
Only from Pangea Software

Try it for FREE:

[www.pangeasoft.net](http://www.pangeasoft.net)



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If there's such a thing as hardware hog heaven, we're there. This month we got our hands on the mighty and milestone-breaking 1GHz PowerBook G4, the loudest speakers we've ever plugged into our iPods, the next generation of external hard drives, and two handhelds: the most-affordable-Palm-ever Zire, and the finally-catching-up-to-PocketPC Palm Tungsten T (shown here). On the softer side of 'ware, we felt the Force in Jedi Knight II: Jedi Outcast, compressed our QuickTime with Cleaner 6, and let good old Quicken remind us just how broke we are after the holidays. In the near future, we'll drink our martinis shaken, not stirred, and get jiggy with the MadPlayer—a pocket DJ machine that we hope lives up to its hype.

## MacAddict RATINGS

MacAddict RATED  
  
**AWESOME**

You'll be blown away.

MacAddict RATED  
  
**GREAT**

You'll be impressed.

MacAddict RATED  
  
**SOLID**

You'll be satisfied.

MacAddict RATED  
  
**SO-SO**

You'll be disappointed.

MacAddict RATED  
  
**LOUSY**

You'll be pissed off.



If we were shopping for this type of product, this is the one we'd buy.



Compatible with Mac OS X or later.

Compatible with Mac OS 9 or earlier.

## This Month:

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## The HotList

54 The best of the best from recent reviews.



# Cleaner 6

## VIDEO-COMPRESSION SOFTWARE

For years, Cleaner has played a big part in Mac media production—not by making media, but by encoding your finished video and audio projects for delivery via the Web, CD-ROM, or what have you. Cleaner employs a slew of compression codecs to output movies in every flavor of QuickTime, Real Video, Windows Media, and other formats. This new version adds some genuinely handy upgrades, including a turbo-charged engine that's nearly twice as fast as the one in the previous release, Cleaner 5.

You can start using Cleaner without the manual: Just drag a media clip (or several) from the Finder into Cleaner, choose your

### It's 40 to 50 percent faster than Cleaner 5.

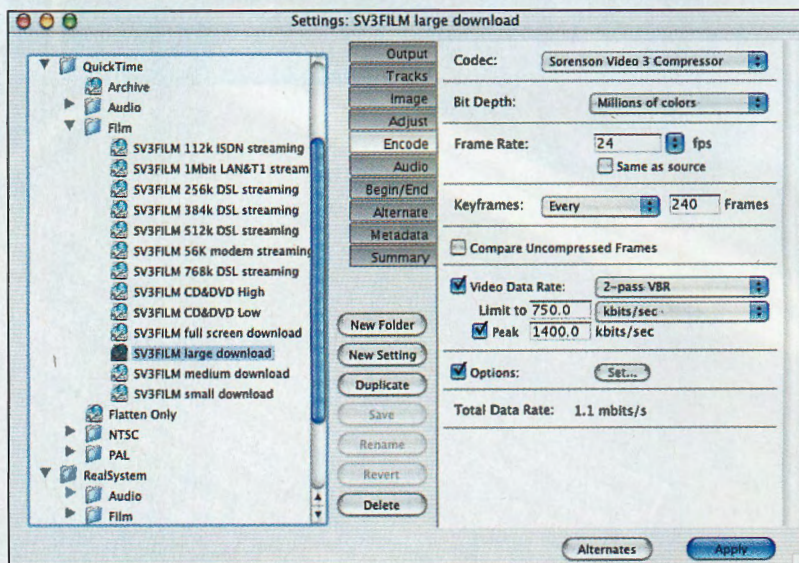
desired encoding settings, and click the Start button to encode one clip or a batch together. Cleaner comes with 150 settings templates, which spares you from working out all the unique details that go into



encoding. Say you want to encode video that you originally shot on film, but remove the 3-2 pull-down



**Cleaner's Dynamic Preview window lets you compare how a frame of footage looks before and after encoding.**



**Cleaner's copious presets mean you don't need to know beans about encoding media—but if you do, you can customize out the wazoo.**

created in the telecine process, along with those ugly interlaced fields, and squeeze the final product into low-, medium-, and high-bandwidth QuickTime files in MPEG-4 format. No problem—there are settings for all of these cases. Want to add carbon copies for Windows Media players, plus encode MPEG-2 for DVD? These settings and many more are also ready to go.

You can conjure up your own settings, too—say, to tweak the encoding bit rate, frame rate, and image size, or to crop video or apply a transparent watermark (like your studio's logo). You can also apply a ton of video and audio filters to your project to polish up the final output, or counteract some of the unwanted side effects (such as compression artifacts) of encoding. Filters for brightness, contrast and gamma values, sharpness, and noise reduction are just a few of the handy ones, but there's one gotcha: They affect the entire clip, not just selected segments. A tool of Cleaner's caliber really should have a keyframing system for applying filters where (and only where) you want the effect.

If you've used Cleaner before, you'll love the new spring in version 6's step (provided you have a G4 processor). In our tests, the new Cleaner chewed through video 40 to 50 percent faster than Cleaner 5, and those gains get bigger if your Mac is packing dual processors. Also, Cleaner now works with the new codecs found in QuickTime 6—including MPEG-4, which delivers image

quality and file sizes almost on par with the Sorenson 3 Pro codec's.

Cleaner 6 also adds a new two-pass variable bit rate (VBR) encoding option when you're converting video into MPEG-1 and MPEG-2 streams. VBR roughly doubles encoding time, but can seriously upgrade image quality without boosting file size. Finally, another interesting innovation is Cleaner's new Watch folders—create a folder on your Mac or on a server, and Cleaner will automatically encode any media clips you drop in there, using the settings you've assigned that folder (a great time-saver if you do lots of encoding with the same settings).

If you only occasionally encode media and you use QuickTime format, then Cleaner is probably overkill—you don't need its endless settings, automation, and support for Real and Windows Media formats. You're better off encoding with QuickTime Pro 6 (\$29.99, [www.apple.com](http://www.apple.com)) and its free codecs, which includes MPEG-4. Another option is Sorenson Media's Squeeze for QuickTime (\$299, [www.sorenson.com](http://www.sorenson.com)), which converts video into the top-notch Sorenson 3 Pro codec and offers some of Cleaner's batch-encoding and settings flexibility.

On the other hand, if you need the ability to tackle any encoding job, with the best results in the least time, then the industrial-strength Cleaner is your only real choice.—*Helmut Kobler*



**COMPANY:** Discreet  
**CONTACT:** 877-347-2733,  
[www.discreet.com](http://www.discreet.com)  
**PRICE:** \$599, \$179 (upgrade from 4.x or later)

**REQUIREMENTS:** Power Mac,  
Mac OS 9.1 or later, 32MB of RAM

**GOOD NEWS:** Fast encoding. Easy and improved interface.  
Two-pass VBR encoding for MPEG-1 and MPEG-2.  
**BAD NEWS:** No keyframing system for changing filter values  
in encoding. Minor interface bugs.

**MacAddict RATED**  
GREAT



# Jedi Knight II: Jedi Outcast

FIRST-PERSON SHOOTER

Ever since we saw Sir Alec Guinness subtly wave his hand and utter, "These aren't the droids you're looking for," before going into a Mos Eisley bar and slicing up some intergalactic scum, we've been longing to whip out a lightsaber and unleash the power of the Force upon our foes, imaginary or otherwise. With Aspyr's port of this LucasArts game, we finally get the chance.

**The best *Star Wars* experience since the original film.**

You play ex-Jedi and mercenary-with-a-heart Kyle Katarn, who gets tangled up with some nasty Dark Jedi and has to relearn his Force powers in order to kick ass.

It takes a little while to actually get to do the cool Jedi stuff (telepathy, telekinesis—all your favorite Jedi mind tricks), which is the most satisfying part of the game, but it's well worth the wait. The first two missions (each taking about an hour of play) are standard—you run around and shoot everything while solving little puzzles, which is fun enough in itself, thanks to the simple satisfaction of playing in the *Star Wars* universe. But it's only later in the game, when you gain Force powers

and a lightsaber, that the real joy and adrenaline begin to flow. Sure, you can opt to play in the usual way, blasting a myriad of aliens and Troopers with an arsenal of quite gratifying guns (all with alternate fire options) and have a swell time, but your lightsaber is essential for fighting the evil Jedi you come across, and with its defensive and missile (controlled throwing) capabilities, it will eventually become your most useful weapon.

The graphics (driven by the Quake III: Arena engine) are great, but it's those familiar *Star Wars* sounds and orchestral music that immerse you fully. Turn up the volume as you tangle with a leaping, lightsaber-wielding Dark Jedi, the music dramatically rising as you watch him expire in a 360-degree slow-motion pan worthy of the cinema. Great stuff!

Besides the running around, slashing, and shooting behavior, in the course of

the game you get to drive an imperial ATST walker (stepping on Storm Troopers), drive remotely controlled droids (into Storm Troopers, just to annoy them), unleash little flying baseball-shaped drones to injure and distract your foes, and use a ton of alternate weapons and inventory items.

With its well-made environments, rich multiplayer mode, and great graphics, sound, and action, this game is the best *Star Wars* experience since the original film.  
—Chris Imlay

## Our Favorite Force Powers

The Force works in mysterious ways. Here are some of the wacky ways you can use it. Both single-player and multiplayer modes have their own unique Force powers beyond these.

FORCE POWERS	Lightning	Jump	Speed	Push	Pull	Jedi Mind Trick	Grip	Lightsaber Throw
USES	Shock Troopers! Fry machinery. (Remember to shout "Join me or die!" while searing opponents.)	Get to places you never thought it possible to reach, or jump on Storm Troopers' heads.	Power up to kill Dark Jedi. Fight many opponents. Run circles around Storm Troopers.	Send the Troopers into abysses (you'll start seeking out catwalks with foes perched precariously on them.)	Yank the weapons right out of Storm Troopers' hands, then watch them kneel and cower.	Sneak up on a group of Storm Troopers and use the Jedi Mind Trick to make them attack each other. (Now you don't care whose droids these are, do you?)	Throw a Storm Trooper at an enemy, at a wall, or over a cliff. (FYI: This power kicks in later in the game.)	Blow up stationary guns and slice through groups of Storm Troopers—this even works around corners.

**COMPANY:** Aspyr  
**CONTACT:** 888-212-7797,  
www.aspyr.com  
**PRICE:** \$49.95

**REQUIREMENTS:** 400MHz G3 (G4 recommended) or faster, Mac OS 9.1 or OS 10.1 or later, 256MB of RAM

**GOOD NEWS:** Like playing *Unreal Tournament* but with Force powers and lightsabers! Better than the new movies.  
**BAD NEWS:** Takes a little while for the Force powers and lightsaber fights to kick in.

**MacAddict RATED**  
  
**AWESOME**



Tangle with Dark Jedi in the Bespin (home to Cloud City) airshafts.



"The keys are on the dash... Shotgun!"



High five! D'oh!



If you drive a droid into a Trooper too many times, you end up with a headless droid.





# Freeway 3.5.5

## WEB-DESIGN SOFTWARE

Graphic designers, artists, even aspiring but uninitiated HTML jockeys—we've all experienced the frustration of trying to create pages for that darn World Wide Web. The void between the big guns of graphical Web design—Macromedia's Dreamweaver and Adobe GoLive—and the core coder's simple text editor is vast and confusing. Freeway is an HTML *generator*, not an HTML editor, and if you just want to lay out your pages without worrying about the cryptic coding and scripting behind the scenes, it's right up your alley.

The latest version of Freeway is fully OS X native and sports a slew of new and updated features. Notable among these are support for layered Photoshop images, Illustrator 10 files, compressed Flash (MX) files and enhanced drag-and-drop

## Freeway handily bridges the gap between your artistic vision and your (lack of) HTML skills.

capabilities (including music and pictures from iTunes and iPhoto, respectively).

Freeway installed effortlessly and felt snappy and responsive on our 400MHz iMac running Mac OS 10.2.2; a quick OS 9.2 restart showed that the same installation worked well in the older OS as well. One of the surprise perks in version 3.5.5 is support for OS 8.6, which Freeway 3.5 lacked—not that we need it, but it's a nice gesture.

Freeway offers excellent typographic tools and has an easy-to-learn DTP-style interface (we'd say it reminds us of QuarkXPress, but unlike Quark, Freeway runs in OS X). Where this app really shines is in its ability to work with overlapping (layered) page elements, allowing you to lay out your Web creation in any order you like. Freeway can also directly import and even edit



many common image-file types without requiring that you fire up a dedicated image-editing app. If you are not sure what all of this means, don't worry—the application comes with a comprehensive manual, a quick-start guide, and a couple of tutorial sites (included on the Freeway CD) to get you up to speed. If that's not enough, SoftPress also has well-stocked support and FAQ sections on its Web site.

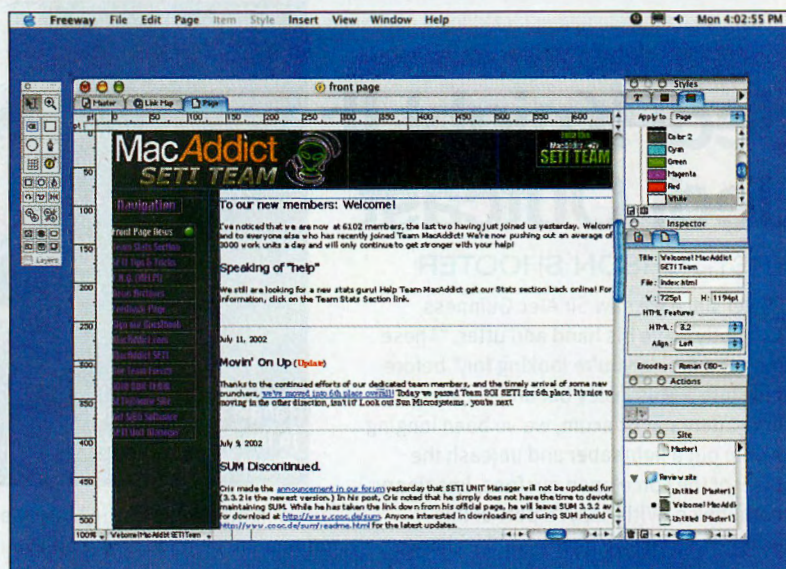
Freeway is definitely geared toward the creation of new content. While you can import existing HTML pages into Freeway, it's a roundabout process that may result in more work than if you started from scratch. We imported a small site created in Dreamweaver, only to see the page layouts get completely hosed in the process. Your mileage will vary, but since Freeway doesn't let you work directly with HTML, SoftPress suggests extensive testing after import, even if your imported pages look correct. We also suggest backing up the original files before piping them into Freeway.

Freeway has no HTML editor of any kind,

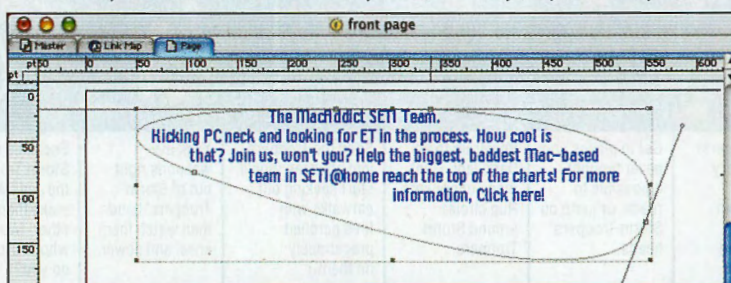
but that's because it doesn't actually create the HTML code until you finally publish your work. The software has some tools for inputting custom code, but they are limited. It's easy to open Freeway-generated pages in a text editor for last-minute tweaking, especially if you change the preference setting for HTML Output to More Readable. Freeway's default More Efficient setting saves a bit on file size, but generates code that's much more difficult to peruse in a text editor.

One complaint we have with Freeway is that it still does not support contextual menus. Fully documented keyboard shortcuts abound, but menu junkies may feel left out. We put contextual menus on our wish list for a future version.

Freeway is a very capable program that handily bridges the gap between your artistic vision and your (lack of) HTML skills and patience. With a boatload of features, layout-oriented ease of use, and surprising flexibility for creating Web pages, Freeway may be just what you need.—Darren Dewey



Freeway is the fast lane to Web-site city for code-phobic artsy types and other nongeeks.



Freeway can generate images, sparing you from launching Photoshop just to create a little text graphic.

**COMPANY:** SoftPress Systems  
**CONTACT:** [www.softpress.com](http://www.softpress.com)  
**PRICE:** \$249 (boxed copy), \$229 (download), \$49 and up (upgrades)

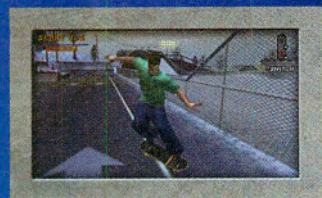
**REQUIREMENTS:**  
Power Mac, Mac OS 8.6 or later, 128MB of RAM

**GOOD NEWS:** Good printed documentation. Handles common image and multimedia formats well. Minimal system requirements.  
**BAD NEWS:** Iffy import feature. No contextual menus.

MacAddict **RATED**  
SOLID



# TONY HAWK'S PRO SKATER 3



Ten **huge**, living  
breathing levels.



**Gorgeously** rendered 3D  
virtual world.



Skate to an **awesome**  
hip-hop & punk rock soundtrack.



Blood  
Mild Lyrics  
Suggestive Themes

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# Kodak EasyShare DX4330

## 3.1-MEGAPIXEL DIGITAL CAMERA

Kodak's new 3.1-megapixel EasyShare DX4330 is a couch potato's dream; if you can use a TV clicker, it's made for you.

Turn the camera's simple mode dial to full Auto for point-and-click operation, Sport for action shots, Night for low-light scenes, Landscape for distant objects, Close-up for shooting subjects as close as 2.8 inches, and Video for short movie clips with sound. On these settings the camera gets the scene right most of the time. The DX4330 has a moderately fast f-2.8 lens, shutter speeds from 1/2 to 1/1,700th of a second, and three resolution settings of 3.1, 2.2, and .75 megapixels.

Strategically placed buttons handle picture review, flash modes, menu access, zoom (38mm to 114mm in 35mm-camera terms), menu navigation, and shutter release. Press another button called Share

had trouble with the supersensitive rocker switch—we kept confirming the wrong menu choices until we lightened up on our touch.

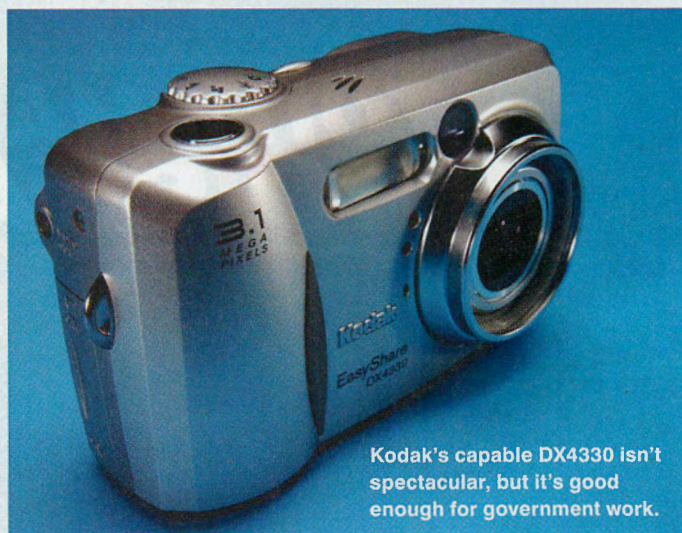
Most DX4330 buyers will probably acquire the optional Dock (\$79.95), in which the camera rests while its wimpy two-cell NiMH battery (included with the Dock, not the camera) recharges. Using either the NiMH or a pair of AA cells, we got only a little over an hour's worth of shooting with the LCD monitor on and the flash in use about half the time.

The Dock connects to your Mac via an included USB cable. After you've installed Kodak's EasyShare software, one touch of the big Kodak button on the Dock opens the application and allows you to transfer your images effortlessly. Incidentally, EasyShare will work with almost any digicam; if you want to take it for a spin, it's available free at [www.kodak.com/global/en/digital/easyShare/software/software.jhtml](http://www.kodak.com/global/en/digital/easyShare/software/software.jhtml). It pleasantly surprised us; it's not as smart as iPhoto, but it's available for both Mac OS 8.6 to 9.x and Mac OS X.

The DX4330 produced good pictures under most conditions. Unfortunately, it exhibits heavy purple fringing in high-contrast areas, like tree branches



The DX4330 captured shadow details quite well in this shady scene.



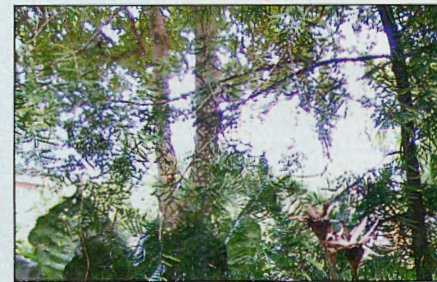
Kodak's capable DX4330 isn't spectacular, but it's good enough for government work.



The optional Dock comes with a rechargeable battery—a good thing, too, as the DX4330 is extremely power hungry.

photographed against a bright sky. Most digicams suffer from this malady, but the DX4330 has an especially bad case. Nevertheless, with that exception, most of our pictures looked fine, even when we enlarged them digitally to 11 by 14 inches.

Kodak's EasyShare cameras adhere to the KISS (keep it simple, um, silly) philosophy; if you're looking for a point-and-shoot digicam that has some sophistication but is a no-brainer to use, the DX4330 could be the one for you.—Arthur Bleich



Unfortunately, heavy purple fringing occurs where dark tree branches meet a bright sky.

## If you can use a TV clicker, it's made for you.

while reviewing your images, and you can electronically mark them for future emailing, printing, or placement in a designated folder on your Mac.

The DX4330 has ports for USB and video out, as well as a memory-card slot that takes either SecureDigital or MultiMediaCard postage-stamp-size cards, neither of which comes with the camera (it has 16MB of memory built in). If you want more picture-storage capacity (and you surely will), just add a card; as a bonus, you can copy images between the card and the internal memory.

Though the DX4330 is easy to use, it has some quirks. Kodak boasts that the LCD monitor won't wash out in the sun, but we found it only marginally better than the average LCD on a bright day. Unfortunately, it's difficult to see details on this "advanced" LCD under low-light conditions, and we had to revert to the less-accurate optical viewfinder. We also

**COMPANY:** Eastman Kodak  
**CONTACT:** [www.kodak.com](http://www.kodak.com), 888-368-6600  
**PRICE:** \$299.95

**REQUIREMENTS:**  
USB-equipped Mac, Mac OS 8.6–9.x or 10.1 or later.

**GOOD NEWS:** Slick looks. Good images (most of the time). Very easy to use. Good written documentation.  
**BAD NEWS:** LCD monitor hard to see indoors. Twitchy rocker switch for menus. Bad purple-fringing artifacts.

MacAddict RATED  
●●●●●  
**SOLID**



# 1GHz PowerBook G4

## SUPERCOMPUTER TO GO

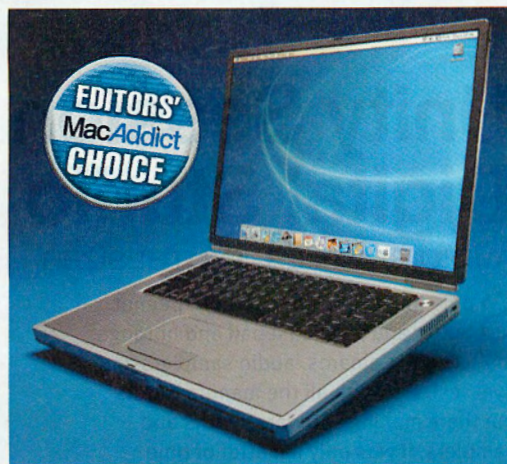
When we last had the pleasure of road-testing a PowerBook G4 (*Reviews*, Aug/02, p38), the 800MHz TiBook had us drooling. This time around, with a 1GHz G4 under the hood, 64MB of Radeon Mobility 9000 graphics power, and a DVD-burning SuperDrive up front, we're buying. It's \$200 less than its predecessor, so how can we afford *not* to get one?

Given that it's the first SuperDrive-equipped portable, our first question was whether you can burn a DVD on one battery charge. Apple suggests in the manual that you leave the 'Book plugged in when burning video DVDs, and we concur. We burned a 4GB data DVD in just under 2 hours, and the battery-power icon reported that the battery was still half full. DVD

encoding and burning generally takes twice as long for video as for data, so we'll bring along the AC power rig.

Our next burning question: How hot does this PowerBook get? We were pleased to discover that it doesn't run any hotter than the 800MHz model did—it does get pretty warm, though; playing a DVD got it too hot for literal laptop use.

The next bit may be too much for the aesthetically sensitive to bear. You know the Titanium family's reputation for being too easy to scratch, and since Apple said it fixed that problem, we felt obliged to investigate. We threw good judgment to the wind and attacked an old and a new PowerBook with the blunt end of the AC



PHOTOGRAPH BY MARK MADEO

**Faster, cheaper, and less scratchable? We'll take two.**

power plug until their Titanium hulls bled. We offer the consoling report that the new 'Book was indeed more scratch-resistant than the older one.

Bottom line: sex plus power still equals Titanium. If the new TiBook piques your lust, just get one—you won't be sorry.

—Niko Coucouvanis

### COMPANY:

Apple  
CONTACT: 800-795-1000 or  
408-996-1010, [www.apple.com](http://www.apple.com)  
PRICE: \$2,999

### SPECIFICATIONS:

1GHz G4 processor with 1MB of L3 cache,  
512MB of PC133 SDRAM (1GB max), 60GB Ultra ATA/66 hard disk,  
ATI Mobility Radeon 9000 4X AGP graphics (64MB), S-Video and DVI  
out, 10/100/1,000Base-T Ethernet, AirPort card, SuperDrive

**GOOD NEWS:** Faster, cheaper, and more scratch-resistant. 64MB video. SuperDrive.

**BAD NEWS:** Pants strongly recommended for laptop use.

MacAddict RATED



# Quicken 2003 for Mac

## PERSONAL-ACCOUNTING SOFTWARE

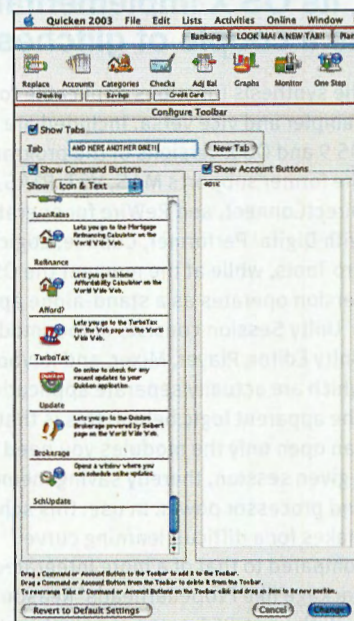
Money management either floats your boat or sinks it. Either way, Intuit's Quicken is the most comprehensive Mac software for handling your finances. The problem with a mature product is that there's not a whole lot to change. Interface improvements and more data downloads add convenience to the app, but unless you need Quicken's new investment tools, you might skip this year's upgrade.

Quicken has added automatic-download convenience. With last year's Quicken 2002 Deluxe product, Intuit added One Step Update for downloading online data from multiple sources at the same time. This year, Intuit adds a single window for reviewing the downloaded transactions, letting you see investment and bank data in the same window. Last year, Intuit added Brokerage Transaction Download for downloading your investment records—a great idea, but not a lot of companies supported it.

In the past year, Intuit has added support for more than 250 financial institutions, including Fidelity, Harrisdirect, Quicken Brokerage, RBC Dain Rauscher, and TD Waterhouse. (Note that some institutions charge a fee for automatic data downloads into Quicken.)

Quicken now provides cash-management features for investment accounts, so you can write checks, make deposits, and record ATM transactions right in your brokerage account (previously you had to link a money-market account to your brokerage account). Plus, you can now track more-sophisticated financial hijinks such as selling short, mergers, and stock spin-offs.

If you're into the new investment features or if your bank's name has been added to the list of download partners, buy Quicken 2003. If not, you're probably OK sticking with Quicken 2002.—Narasu Rebbapragada



**Quicken 2003's configurable toolbar let us add more icons and tabs than we knew what to do with.**

### COMPANY:

Intuit  
CONTACT: 650-944-6000,  
[www.intuit.com](http://www.intuit.com)  
PRICE: \$49.95

### REQUIREMENTS:

Power Mac, Mac OS 9.2.2  
or OS 10.1.4 or later, 128MB of RAM

**GOOD NEWS:** More easy-download features.

Carbonized.

**BAD NEWS:** Not a huge upgrade.

MacAddict RATED





# Unity Session Digital Studio

AUDIO SAMPLER-SYNTHESIZER

Some things just go together—peanut butter and jelly, baseball and hotdogs, mullets and Camaros, audio samplers and synthesizers. With all the manufacturers out there making software synths and samplers, it was only a matter of time before someone stuck them together in one box—and Bitheadz has done that and then some in the latest version of its Unity Session Digital Studio.

Unity Session combines two Bitheadz products: Retro, a physical-modeling virtual synthesizer that creates realistic sound, and Unity, a software sampler. But the kind folks at Bitheadz have done a lot more than simply dump two existing applications in one box and call it a new product. They have integrated the pair into one seamless app that blurs the boundaries of synth and sampler, making

## As sweet as Unity Session is, its OS X implementation has a couple of glitches.

the synthesis functions applicable to the sampler and vice versa. Included are Mac OS 9 and OS X versions of the program; the former supports MAS, VST, RTAS, DirectConnect, and ReWire for operation with Digital Performer, Cubase, Logic, and Pro Tools, while at the moment the OS X version operates as a stand-alone app.

Unity Session consists of four modules—Unity Editor, Player, Mixer, and Keyboard—which are actually separate applications. The apparent logic behind this is that you can open only the modules you need for a given session, thereby saving memory and processor power. In use, this scheme makes for a difficult learning curve compared to that of a more integrated package like Propellerheads' Reason.

With up to 256 notes of polyphony available, only certain multiarmed Hindu gods will be able to make Unity Session sweat when it comes to spitting out the

notes, and with 32-bit processing and a 96kHz sample rate, you know it'll sound cleaner than Howard Hughes's hands. You've also got seven MIDI processors, including arpeggiators and chord memory, to keep the sound moving, and a full complement of 23 audio plug-ins, such as EQ, chorus, delay, compression and reverb, which you can apply with two effects sends per channel. The sampler can read Unity format as well as GigaSampler, Akai, Roland, SampleCell, Sound Designer, AIFF, wave, SoundFonts 2.0, DLS, and audio CD-ROM formats, and just in case you don't have any of those formats stowed in your quiver, Bitheadz kicks down three CDs packed with over 2GB of fantastic samples.

Unity Session is easy to set up and sounds wicked. The factory presets cover just about every type of synth sound of the last 30 years—from crusty Moog blasts to the entire vintage line from Roland. As a matter of fact, with three stereo oscillators and two stereo filters per voice, its analog emulation is as good as, if not superior to, that of mega analog-modeling stars like the European hardware Nord Lead and Access Virus—and it's a fraction of the cost. Throw in physical models like Clarinet, Flute, Hammered String, and Bowed String Filters, and you have a workstation synth rivaling the big players from Japan.

As sweet as Unity Session is, its OS X

implementation has a couple of glitches. Once initialized, Core MIDI won't quit when you close the application—it hangs around, and you can only put it to rest with a force-quit, which sometimes brings down the Finder as well. Also, if you get all Keith Emerson on its ass and play some really fast bits (that's musician-speak for *complex*) the whole app will occasionally crash and burn. Despite OS X's preemptive multitasking and smart protected memory, it's best to work in Unity Session with no other apps running in the background.

Overall, Unity Session is a damn good product—especially for one of the first OS X synth-samplers. It sounds excellent no matter what kind of music gets you off, from orchestral weirdness to shaker-booby house. Bitheadz is constantly upgrading Unity Session, so it's only a matter of time till the company works out the kinks. By the time the major sequencer manufacturers have OS X products out in force, Unity Session will be the mecca software synth for ripplin' in Jaguar.

—Kent Carmical

## Hear Ye

You can sample some of Unity Session's Sound modules on the Web at [www.bitheadz.com/demos/utysm/main.html](http://www.bitheadz.com/demos/utysm/main.html).



Bitheadz's Unity sampler and Retro synthesizer, together at last, and making beautiful (or ugly) music in Mac OS X.

**COMPANY:** Bitheadz  
**CONTACT:** 888-870-0070,  
[www.bitheadz.com](http://www.bitheadz.com)  
**PRICE:** \$649

**REQUIREMENTS:** 366MHz G3, Mac OS 8.6–9.2.x or OS 10.2 or later, 128MB of RAM, 2GB of free hard disk space

**GOOD NEWS:** OS X support. Awesome sound quality. Tons of samples and presets included.  
**BAD NEWS:** Shaky performance in OS X. A bit daunting to learn.

MacAddict RATED  
GREAT



# Palm Tungsten T

PDA

First, the good news: The Tungsten T is the sexiest and most advanced handheld yet that's Mac compatible out of the box. The bad news: Considering how advanced Pocket PCs are these days, Palm should have released this years ago.

The Tungsten T is a kickass handheld. It features a brand-new processor (Texas Instruments' OMAP1510), a beautiful TFT (thin film transistor) display featuring a resolution of 320 by 320 pixels and 65,000 colors, a voice recorder that can capture

## We like most things about the Tungsten T.

close to 40 minutes of your rambling, and an innovative case that slides open to reveal the Graffiti-writing area. Closed, the 5.6-ounce unit measures only 4 inches

in length; open, it's 4.8 inches.

If you have a Bluetooth adapter for your Mac, you can sync the Tungsten T wirelessly to your Mac. Palm touts Bluetooth as a major feature, yet the company fails to enable it out of the box. Instead, you need to go to the device's Prefs and enable Bluetooth, as well as add it as a HotSync option. Finally, you have to turn on Bluetooth within the Palm Desktop software.

While HotSyncing wirelessly is supercool, Bluetooth (with a maximum speed of 1 Mbps) is slower than USB (12 Mbps max). Also, you still need the clunky cradle to charge the Tungsten T's battery, since the AC adapter plugs into the cradle's USB cord. The Tungsten T comes with software aplenty, including Documents To Go for working with Word and Excel

Better late than never  
or too little, too late?  
A little of both.



PHOTOGRAPH BY MARK MADEO

files; PalmReader for reading eBooks; and PhotoBase for viewing pictures. Two Bluetooth apps allow you to chat and share info with other lucky (and wealthy) owners of Bluetooth-enabled PDAs.

Except for the \$500 price tag, we like most things about the Tungsten T. We just wish it had come to the market years ago instead of playing perennial catch-up to PC-friendly handhelds.—Cathy Lu

**COMPANY:** Palm

**CONTACT:** 800-881-7256 or  
408-503-7000, www.palm.com

**PRICE:** \$499

**REQUIREMENTS:** USB-equipped Mac,  
Mac OS 9 or 10.1.2 or later

**GOOD NEWS:** Beautiful screen. Built-in Bluetooth.  
Finally, some innovation from Palm.

**BAD NEWS:** Cradle required to charge device.  
Expensive. Innovation comes a little late.

MacAddict RATED  
SOLID

# Palm Zire

PDA

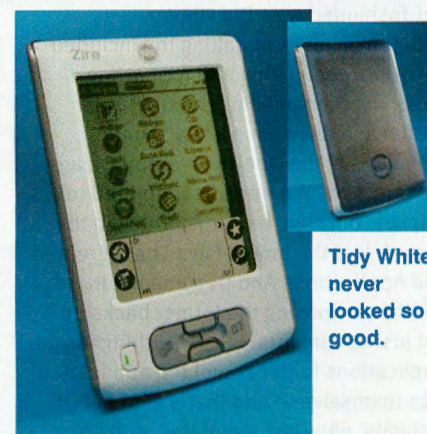
The irony of it all: You buy a fancy PDA to manage your expenses, and you have that much more to pay down on your Visa balance. Or maybe the weight of the digital-lifestyle devices in your backpack has you seeing a chiropractor. There's hope yet: Palm's new Zire PDA is affordable and lightweight, and has all of the functionality the average user needs.

The Palm Zire is an unobtrusive little gem, measuring 4.4 by 2.9 by 0.6 inches and weighing a feathery 3.8 ounces. The device has a tasteful gray-and-white exterior and comes with a rubbery blue flip lid to protect its 160-by-160-pixel monochrome display. At the bottom of the face are four responsive buttons, at the ready for stylus relief: instant address book, instant date book, and two scroll

buttons. Also included is a Mini USB/HotSync cable and a tidy little 60Hz power adapter to recharge the Lilon battery.

Behind this fresh design is the rock-solid, Mac-friendly Palm OS running Palm Desktop 4.1, complete with native HotSyncing. After downloading the Entourage conduit from Microsoft's Web site, syncing up the Zire with our Entourage data was push-button easy.

The most exceptional thing about the Zire, of course, is its price: It's the first true PDA to slip below the \$100 mark. This means limitations on memory and therefore expandability, so if eBooks, digital photography, and direct Internet access are your bag, the 2MB Zire isn't for you. However, we found plenty of room for the basic necessities—address and date-book



PHOTOGRAPH BY MARK MADEO

Tidy Whitey  
never  
looked so  
good.

information, memos, and to-do lists, plus a few games and extras like Vindigo software (\$24.95 per year, www.vindigo.com), which transfers vital info (like public restroom locations) from the Web to your Palm.

The Zire won't wow you with animal-print faceplates, but it does what a PDA needs to do: manage chaos instead of adding to it.—Jennifer Morgan

**COMPANY:** Palm

**CONTACT:** 800-881-7256 or  
408-503-7000, www.palm.com

**PRICE:** \$99

**REQUIREMENTS:** USB-equipped  
Mac, Mac OS 9.x or 10.1.2 or later

**GOOD NEWS:** Affordable. Solid functionality.  
Lightweight. Clean design.

**BAD NEWS:** Only 2MB of RAM. Not expandable.

MacAddict RATED  
GREAT



PHOTOGRAPHY BY MARK MADEO



Maxtor's new look-alike 5000XT and 5000DV also perform alike—despite their different innards.

# Personal Storage 5000XT and 5000DV

## FIREWIRE HARD DRIVES

Maxtor's new Personal Storage 5000 series of hard drives offers speedy file transfers, push-button backup, quiet operation—and a few surprises.

We tested the 250GB, 5,400-rpm 5000XT and the 120GB, 7,200-rpm 5000DV. Aside from high capacity and good looks, the Personal Storage 5000 line's claim to fame is Maxtor's OneTouch push-button backup feature. However, the front-mounted OneTouch button merely launches Dantz's Retrospect Express and runs a script entitled Maxtor OneTouch, a task that would take only a couple of clicks if you launched Retrospect the old-fashioned way. Big whoop.

Setup involves installing the included software, connecting and formatting the drive, then pushing the OneTouch button and answering a few simple questions in the OneTouch Setup wizard that appears. We were disappointed to discover only two backup options in the wizard: Just Document Files That I Created and Applications And Documents. In addition, choosing the former backs up not just documents, but everything in your Applications folder *except* the application files themselves—and that's a lot of PDF manuals, plug-ins, templates, and so on. We recommend that you relaunch Retrospect the old-fashioned way and

tweak the Maxtor OneTouch script to your liking.

We expected the 7,200-rpm 5000DV to outpace the 5,400-rpm 5000XT—but it didn't. We ran a thorough battery of tests, among them reading, writing, and duplicating a 2GB file, 2GB of 5MB files, and 2GB of 4KB files—and don't bother doing the math: 2GB of 4KB files is 520,000 files. The two drives' performance was essentially identical except when we read the ludicrous 520,000-file folder from them, and when we performed a OneTouch backup. In both of these tests, the <9ms (less than 9ms) seek time of the 5000DV provided a slim advantage over the <11ms (less than 11ms) seek time of the 5000XT. In tests involving individual 50MB and 20MB files, plus 20MB folders of 5MB files, the difference was minimal to nonexistent.

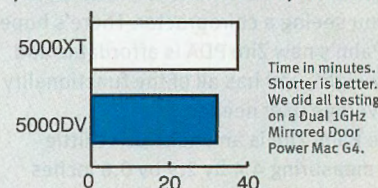
We did all of our testing on freshly formatted drives, so test files were written to and read from the speedily spinning outer tracks of the disk platters. According to a Maxtor spokesperson, data flying off those tracks hits a bottleneck in the circuitry that transfers the data from the drive's read head to its FireWire port, making the two drives perform identically. As the drives fill up and the slower-moving tracks closer to the center of the platters are used, it's likely that the faster-spinning

7,200-rpm drive will outperform the 5,400-rpm one—but not by a lot.

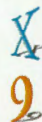
But don't let our carping about Retrospect's limitations and performance similarities fool you—these drives quite impressed us. Both are solidly built and exceptionally quiet—especially the 5000DV. The 5000XT's capacity—233.7GB after formatting (and after calculating gigabytes as  $2^{30}$ , as true geeks should, and not as 1 billion bytes, as marketing folks do)—is well-nigh mind-boggling, and, coupled with its strong performance and great price, convinced us to give it the nod over the 5000DV. —Rik Myslewski

## Finally, a Difference

When backing up a 13.75GB collection of 11,000 files, the 7,200-rpm 5000DV's faster seek time speed pulled it slightly ahead of the 5,400-rpm 5000XT. In most other tests, the drives' performance was essentially identical.



## Personal Storage 5000XT



**COMPANY:** Maxtor  
**CONTACT:** 877-692-3562,  
[www.maxtor.com](http://www.maxtor.com)  
**PRICE:** \$399.99

**REQUIREMENTS:** Mac with  
 FireWire or USB port (FireWire highly  
 recommended), Mac OS 8.6 or later

**GOOD NEWS:** Solidly built. Extremely high capacity. Fast.  
 Quiet. Convenient button-activated backup.  
**BAD NEWS:** Misleading backup options.

MacAddict RATED  
 GREAT

## Personal Storage 5000DV



**COMPANY:** Maxtor  
**CONTACT:** 877-692-3562,  
[www.maxtor.com](http://www.maxtor.com)  
**PRICE:** \$299.99

**REQUIREMENTS:** Mac with  
 FireWire or USB port (FireWire highly  
 recommended), Mac OS 8.6 or later

**GOOD NEWS:** Solidly built. High capacity. Fast. Very quiet.  
 Convenient button-activated backup.  
**BAD NEWS:** Not appreciably faster than 5,400-rpm 5000XT.  
 Misleading backup options.

MacAddict RATED  
 SOLID





Beautiful? **Yes.**  
Functional? **Very.**  
Cool? **Off the charts.**



## PowerMate

### USB Multimedia Controller & Input Device

ONLY  
\$45<sup>00</sup>

PowerMate is the coolest volume knob your Mac has ever seen – and so much more. Use it to edit iMovies, scroll through long documents and web pages. Best of all, PowerMate is an assignable controller. Program it to do anything you want in any application. At just \$45, it's worth its weight in aluminum. PowerMate – take it for a spin.



JUST  
\$35<sup>00</sup>

### iMic

#### USB Audio Interface

- Adds stereo audio input to your Mac
- Plug-and-Play, no software required
- Portable, no installation or power needed
- Supports MP3, QuickTime and AIFF files



JUST  
\$39<sup>00</sup>

### USB Hub<sup>FOR</sup> Audio

#### 4-Port USB Hub for Audio

- Standard USB 4-port hub
- Optimized for USB-based audio recording
- Works both powered and unpowered
- External power supply included



ONLY  
\$19<sup>99</sup>

### PowerPodAuto

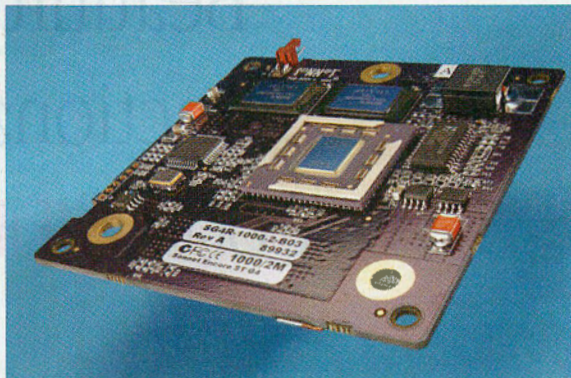
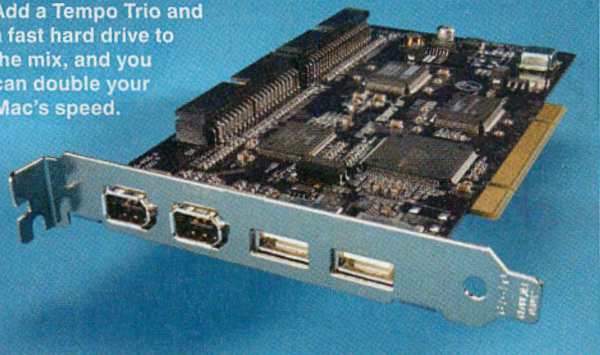
#### 12V Power Charger for iPod

- Works with any cigarette lighter or 12V accessory port in your car, truck or boat
- Charges while playing your music
- Uses any FireWire cable for custom fit

Now there's two **easy** ways to purchase your Griffin Technology product directly.  
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Add a Tempo Trio and a fast hard drive to the mix, and you can double your Mac's speed.



The Encore/ST is an unassuming little square of circuit board packing a 1GHz G4 processor.

# Encore/ST G4 and Tempo Trio

## UPGRADE CARDS

When we swapped our old 400MHz G4 tower (aka *the cursed one*) for a new Dual 1.25GHz Power Mac (aka *the cheese grater*), we thought we'd never look back—and we won't. But we can still breathe some new life into that old Power Mac.

Combined, these two upgrades cost about half the price of a Dual 1GHz Power Mac. In our unscientific tests, the pair more than doubled the performance of a stock Sawtooth Power Mac G4 c. 2000—bringing it up to about half the speed of a Mirrored Door Mac (see “How Fast Is Fast?” below).

It's tough to advocate upgrading an old Mac over buying a new one, especially with all of the new Dual Power Macs handily satisfying OS X's voracity for hardware. That said, what could be better than doubling

the speed of your old Power Mac G4?

Installing the Encore in a G4 tower is simple, even if removing the Power Mac's jumbo heat sink and swapping out the processor card beneath sounds scary. Sonnet's Quick Start Guide includes photos, but they're tiny and low quality, so if you're nervous about violating your Mac, you won't find much reassurance here. The directions, however, are thorough, and our installation went off without a hitch.

The Tempo Trio is a regular jack-of-all-trades, with two standard six-pin (powered) FireWire ports and two backward-compatible USB 2.0 ports on the outside and two ATA/133 controllers, to which you can tether a total of four drives, on the inside.

While the Trio provides faster access to your hard drive, you need to shell out more dough (\$80 and up at [www.maxtor.com](http://www.maxtor.com)) for an ATA/133 drive to seal the deal—unfortunately, that ATA/133 bus can't speed up a Mac's ATA/66 drive.

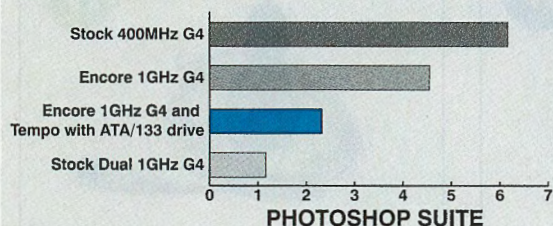
Installing the Trio was another plug-and-play affair, and after we upgraded to an ATA/133 hard drive, our disc access was noticeably faster.

So should you buy these upgrades and keep your trusty Mac another year? That's between you and your God—and possibly your accountant. The Encore-Trio combo will make your G4 much faster, and even make it *feel* like a new Mac—almost. But let's face it, there's nothing like the real thing—if you can afford it.—*Niko Coucouvanis*

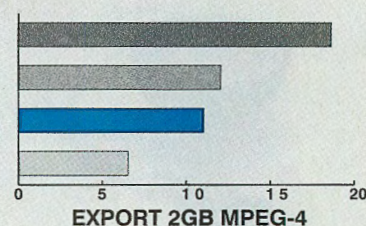
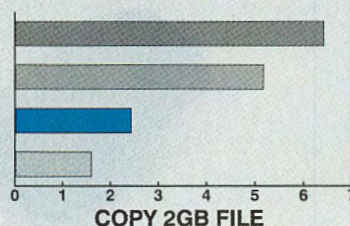
## How Fast Is Fast?

We ran our standard test suite on a stock G4 Power Mac for the baseline, then added the Encore/ST G4 and retested. Finally, we

threw in the Tempo Trio and tested yet again. For comparison, we ran the same tests on a Mirrored Door Power Mac.



Time in minutes. Shorter is faster.



## Tempo Trio

**COMPANY:** Sonnet Technologies  
**CONTACT:** 949-587-3500,  
[www.sonnettech.com](http://www.sonnettech.com)  
**PRICE:** \$179.95

**REQUIREMENTS:** Power Mac with available PCI slot, Mac OS 9 or later

**GOOD NEWS:** One card, three connection types. Easy to install and set up.

**BAD NEWS:** You probably don't need all three connection types.

**MacAddict RATED**  
GREAT

## Encore/ST 1GHz G4

**COMPANY:** Sonnet Technologies  
**CONTACT:** 949-587-3500,  
[www.sonnettech.com](http://www.sonnettech.com)  
**PRICE:** \$699.95

**REQUIREMENTS:** Any Power Mac G4 with AGP graphics (except QuickSilver models) or G4 Cube (Cube Installation Kit required), Mac OS 9.2 or later

**GOOD NEWS:** No drivers to install. No jumpers or dip switches to set. 2MB of L3 cache.

**BAD NEWS:** Doesn't speed up nonprocessor system components. Cube installation is scary.

**MacAddict RATED**  
SOLID



# Fallout 2

## ROLE-PLAYING ADVENTURE GAME

The real world may feel grim at times, but you ain't seen nothing until you've lived a day in the Fallout 2 universe. In this postnuclear scenario, you play the Chosen One, trying to save your homeland from going to hell. Along your journey, you get

**Playing Fallout 2 is the most fun we've had in months.**

sidetracked by numerous other missions, legions of gross and evil creatures whom you must fight, and other diversions. Yet as depressing as it all is, playing Fallout 2 is the most fun we've had in months.

For those of you not familiar with the series, Fallout consists of adventure and role-playing games with turn-based combat. Your character, the Chosen One—a descendant of the Vault Dweller—is the

Two of your nemeses in Fallout 2 are giant geckos and radioactive goo.

protagonist from the original game. You have the glorious job of tracking down the GECK—the Garden of Eden Creation Kit, which legend says will make everything in your homeland peachy again. Along the way you meet people who offer clues, pick up objects (such as first-aid kits and various types of weaponry) that will help you in your fight, trade with (or better yet, steal from) those you encounter, and recruit NPCs (computer-controlled nonplayer characters) who travel with you and aid you in your missions. You can even control to some degree how NPCs fight—their combat style, how close they stay to you, whom they attack first, and so on.

The game is nonlinear, giving you tons of freedom to explore at will and take things



at your own pace. It has a random quality—certain encounters or missions will pop up sometimes but not always—and therein lies the beauty of Fallout 2. You can infinitely replay it without getting bored because there's always something new to discover. Even when you finish the game, you can play again as a different character with different strengths and weaknesses.

Our advice: Skip that overpriced movie this weekend and get yourself a copy of Fallout 2—it's the best \$30 you can spend on entertainment.—Cathy Lu

**COMPANY:** MacPlay  
**CONTACT:** 214-855-5955,  
www.macplay.com  
**PRICE:** \$29.99

**REQUIREMENTS:** 233MHz G3,  
Mac OS 10.1.4 or later, 128MB of RAM,  
600MB of free hard disk space

**GOOD NEWS:** Lots of freedom. Tons of replayability.  
A little something for everyone.  
**BAD NEWS:** Graphics are functional but not beautiful.  
Has as few small gameplay bugs here and there.

**MacAddict RATED**  
●●●●●  
**GREAT**

## Hearing is believing.

Macworld  
**BEST  
OF SHOW**  
2 NOV 02

### Sonica™

high-fidelity USB audio upgrade for Mac <  
supports AC3 and DTS surround output <<  
simple USB connectivity  
24-bit/96kHz analog + optical digital outputs



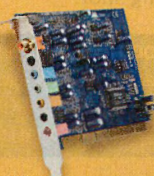
### Sonica Theater™

only USB solution for surround up to 7.1 <  
high-fidelity 24-bit/96kHz audio output <<  
professional 24-bit/96kHz recording  
real-time stereo-to-surround conversion



### Revolution™

only PCI solution for surround up to 7.1 <  
high-definition 24-bit/192kHz audio output <<  
professional 24-bit/96kHz recording <  
real-time stereo-to-surround conversion <  
incredible 106dB SNR provides pristine audio



M-Audio's solutions deliver immersive surround sound on your Mac rivaling even the best movie theaters. Games, movies, and music—even your stereo CDs and MP3s—all sound more alive and intense with M-Audio surround solutions. Now you can enjoy high-definition 24-bit/192kHz audio fidelity and digital output of popular surround formats including Dolby Digital and DTS. And all this advanced technology is as easy to use as your Mac.

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www.m-audio.com/believe

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# Senergy 981

## 19-INCH LCD MONITOR

We don't want to give the Senergy 981 back. This 19-inch LCD with 1,280-by-1,024-pixel native resolution looks gorgeous with its slim silver bezel and lazy Susan-style stand, which easily rotates. The DVI and VGA display works fine in both Mac OS 9 and OS X. The one-button, on-display controller (with brightness, contrast, and color settings) is tucked out of the way on the side of the screen, and the picture quality is crisp and clear, with good color fidelity.

The Senergy 981 does have some minor drawbacks. Although the display rotates 90 degrees for portrait mode, you

need to buy Portrait Displays' Pivot Pro (\$59.95, [www.portrait.com](http://www.portrait.com)) to use it and even if you buy it, it's for OS 9 and earlier only. Plus, the built-in speakers aren't amplified, so you need to get an amplified sound card or external audio device to take advantage of them. However, the 1/8-inch minijack on the monitor is perfect for plugging in headphones.

The Senergy 981 looks good, is good to look at, and has a neat, clean cable-management system in the back. This display is a great showpiece and great accompaniment to any Mac.

—Narasu Rebbapragada



PHOTOGRAPH BY MARK WADCO

Gee, this monitor looks terrific.



**COMPANY:** Princeton Graphics  
**CONTACT:** 800-747-6249 or 714-593-8000,  
[www.princetongraphics.com](http://www.princetongraphics.com)  
**PRICE:** \$1,030.39 (street)

**REQUIREMENTS:** Mac with DVI or  
VGA ports

**GOOD NEWS:** Great image quality. Pretty.  
**BAD NEWS:** On-display speakers are  
basically useless. Pivot feature is OS 9 only and  
requires additional software.

MacAddict RATED  
GREAT

# Stuffit Deluxe 7.0.1

## FILE-COMPRESSION UTILITY

Just when you thought they couldn't possibly cram any more file compression-decompression juju into Stuffit Deluxe, the fine folks at Aladdin Systems have released version 7.0.1 of their flagship product. Stuffit made the OS X grade over a year ago, but it's got a few new tricks up its sleeve.

For starters, the Magic Menus—nonfunctional in the OS 10.2 release—are back and magical as ever (allowing

**If you need support for long file names, we recommend this upgrade—begrudgingly.**

from-the-Finder access to almost all of Stuffit's tools), and Stuffit now supports long file names (up to 256 characters), freeing you from the old 31-character limitation. The big addition, though, is



a new compression format, Stuffit X, which is backward compatible with OS 8.6 and later, but not with older versions of Stuffit.

Stuffit X boasts 512-bit encryption. The U.S. government classifies 128-bit encryption as a nonexportable-to-hostile-nations threat to Peace, Justice, and the American Way, so does Stuffit really need 512 bits? The other alleged improvement in the SITX format is file size. Aladdin claims SITX files are up to 20 and 40 percent smaller than they would be as SIT and ZIP files, respectively. Oh yeah, we forgot that *up to* means *after hell freezes over*. Our unscientific tests crammed a 276MB folder full of small files into a 180.6MB SITX, 184.5MB SIT, and 186.9MB ZIP file. That's not a 20 or 40 percent difference by a long shot.

Name	Kind	Size	Stuffed	Save
256reallyisntsolongforafileameif...	folder (5 Items)	269.40 MB	186.92 MB	31
jag server article	folder (19 Items)	60.63 MB	27.81 MB	54
Reviews temp	folder (12 Items)	29.38 MB	1.85 MB	94
tax returns	folder (4 Items)	394 K	274 K	30
CA.pdf	Document	242 K	163 K	33
fed.pdf	Document	150 K	109 K	27
FRANCHISE TAX BOAR... clippi...	Document	0 bytes	409 bytes	n/
IRS_99	Document	1 K	1 K	25
backups	folder (4 Items)	179.00 MB	157.00 MB	12
HTML	folder (3 Items)	81.53 MB	65.95 MB	19
old browsers	folder (19 Items)	92.61 MB	86.22 MB	7
old system software	folder (11 Items)	4.85 MB	4.83 MB	1
SSW 6.0.5 Disk1of4_sea.sit	Document	452 K	449 K	1

Stuffit Deluxe lets you browse compressed archives without decompressing them first. We love that.

Compressing a 114MB Photoshop file produced 58.4MB SITX, 60.5MB SIT, and 81.9MB ZIP files. We gave SITX the large-file crown over the ZIP format, but we're not so impressed with SITX as compared to SIT.

Bottom line: SITX's 512-bit security is cool, but we'd rather see the claimed file-size improvement over SIT. If you need support for long file names, then we recommend this upgrade—begrudgingly. If SITX compatibility is your main concern, the free Stuffit Expander 7 can open these files just fine.—Niko Coucouvanis



**COMPANY:** Aladdin Systems  
**CONTACT:** 800-656-5443 or 831-761-6200,  
[www.aladdinsys.com](http://www.aladdinsys.com)  
**PRICE:** \$79.99, \$49.99 (upgrade from a registered Stuffit product)

**REQUIREMENTS:**  
Power Mac, Mac OS 8.6  
or later, 32MB of RAM

**GOOD NEWS:** Supports long file names.  
Magic Menus work again.  
**BAD NEWS:** Stuffit X isn't all that.  
Weak upgrade for the price.

MacAddict RATED  
SOLID



# EV SonicXS

## THREE-PIECE SPEAKER SET

Go on, say it out loud: SonicXS. Sonic excess is what this speaker system is all about. How excessive is it? Try 60 watts per channel in the bookshelf-size satellites and a whopping 125W downstairs in the subwoofer. More impressive specs: frequency response

## It puts most three-piece sets to shame.

ranges from 45Hz to 20KHz and 105dB of sound pressure at 1 percent THD (total harmonic distortion).

Whatever your brain makes of those numbers, your ears will hear thundering bass, crisp highs, and a rich, satisfying midrange putting that of most three-piece sets to shame. Chalk up that range to the

Sonic excess is a good thing, and the EV SonicXS lives up to its onomatopoeia.

1-inch horn tweeter and 4-inch woofer in each satellite.

Since they're billed as multimedia speakers, we threw all kinds of sound at them: the booming artillery and subtler footsteps and death-groans of *Quake III: Arena*, CD-audio tracks from all genres, MP3s of varying quality played from an iPod, and the first season of *The Simpsons* on DVD. All of the above sounded great, and the speakers came with the requisite stereo RCA cables for component use as well as a 1/8-inch stereo minijack-to-RCA cable for plugging into a Mac, iPod, or other music source. If karaoke's your thing, plug a 1/8-inch mic into the Auxiliary In port and rock out.

The SonicXS trio can easily fill a dorm room (and the rest of the floor) or modest



PHOTOGRAPH BY MARK MADEO

apartment with sound, but they're certainly not small. We did find one element aggravating: The cables for attaching the satellites to the subwoofer are short—just 6 feet, to be exact.

The system's excessive price could get you two capable 2.1 systems, or a respectable 5.1 surround system (which your Mac might support someday), but for ease of use, badass retro Marshall stack look, and cupboard-rattling sound, we're sold.—*Niko Coucouvanis*

**COMPANY:** Telex

**CONTACT:** 800-328-3771 or 952-884-4051,

www.telex.com

**PRICE:** \$199.99

**REQUIREMENTS:** Audio

source with stereo RCA or

1/8-inch minijack

**GOOD NEWS:** Scary loud. Full range. Karaoke model!

**BAD NEWS:** Scary expensive. Karaoke mode. Big for desktop use. Included cables are short.

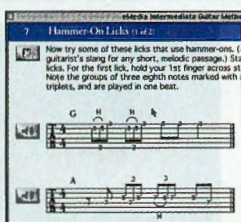
MacAddict RATED



# Intermediate Guitar Method

## INSTRUCTIONAL CD-ROM

Intermediate Guitar Method from eMedia is hands-on lesson software with a simple design and many useful exercises for the beginning guitarist. The layout is clean, user friendly, and easy to access, and the application has a few handy extras, such as a tuner and a metronome. The lessons themselves tend to dwell on standard folk-rock licks, which would probably appeal to a young player, but there isn't much here for a more advanced and adventurous (or even a truly intermediate) musician. What Guitar Method does offer is a solid foundation in guitar fundamentals and good basic strumming and finger-picking techniques, or, in other words, a good platform for a beginner who wants to reach the next level. The intermediate or advanced player looking for a challenge will have to look elsewhere.—*Kevin Caulfield*



**Guitar Method teaches you the licks and the terminology.**

# Ultra ImageMate Reader

## COMPACTFLASH CARD READER

The good: It's quick. The bad: You may have to stretch to reach it (darn 3-foot cord!).

The ugly: 70 bucks (ouch). Still, we'd gladly pay for the privilege when it comes to downloading photos swiftly from 512MB CompactFlash cards.

Downloading photos from a 48MB CompactFlash card to our Mac via the Ultra ImageMate took an average of 41 seconds, while uploading data from the Mac to the card averaged a speedy 13 seconds. By contrast, our USB ImageMate took 71 long seconds to download data to the Mac and 59 seconds to upload files to the card.

If you've got hefty CompactFlash cards, this is one investment that will pay you back—in time saved.—*Kris Fong*



PHOTOGRAPH BY MARK MADEO

Ultra's quick and silver.

**COMPANY:** eMedia

**CONTACT:** 888-363-3424 or

206-329-5657, www.emediamusic.com

**PRICE:** \$59.95

**REQUIREMENTS:** Power Mac, System

7.5.3—Mac OS 9.x, 16MB of RAM

**GOOD NEWS:** Built-in tuner and metronome.

Easy to use.

**BAD NEWS:** Too easy for intermediate players.

MacAddict RATED



**COMPANY:** SanDisk

**CONTACT:** 866-726-3475,

www.sandisk.com

**PRICE:** \$69.99

**REQUIREMENTS:** Power Mac, Mac OS 9.1–9.x

or 10.1.2 or later, FireWire port

**GOOD NEWS:** Greatly cuts down on your wait time.

Spiffy cool looks. Small.

**BAD NEWS:** Expensive. Short FireWire cable (but at least it comes with one).

MacAddict RATED





# Cordless Elite Duo

## WIRELESS MOUSE AND KEYBOARD

Logitech's Cordless Elite Duo wireless keyboard-and-mouse combo pulled a Jekyll and Hyde number on us. The beautiful, customizable keyboard charmed us with its functionality, while the heavy mouse made our hand shriek with discomfort.

First the keyboard: The beautiful, slim keyboard has more button and knob customization options than you'll ever

### We loved the keyboard but hated the mouse.

need. Install the driver software (required to make your Mac keyboard combinations work), and you can control iTunes, eject your CD media, mute your sound, get to

your Home folder, and access anything else you want at the touch of a button. We were annoyed that the keyboard's oversize curves slightly overflowed our ergonomic keyboard tray, but we were willing to overlook this.

Then we got our hands on the mouse. That term feels like a misnomer, since the mouse has five buttons on its hull and two heavy AA batteries inside. Its battery life is decent, though—we used it daily for about a month before it ran out of juice. The Elite Duo's 6-foot wireless range really bugged us. Given that you have to plug the USB receiver into your Mac (not into a hub), that



PHOTOGRAPH BY MARK MADEO

**Logitech's dysfunctional duo comes with a killer (in a good way) keyboard and a bum mouse.**

range barely covered the distance between our Mac on the floor and the mouse on our desk. We did, however, love the touch of the scroll wheel.

In the end, we loved Cordless Elite Duo's keyboard but hated the mouse (not to mention the short wireless range). If you like your mice large and heavy, add a point to our compromise rating.  
—Narasu Rebbapragada



**COMPANY:** Logitech  
**CONTACT:** 800-231-7717 or  
510-795-8500, [www.logitech.com](http://www.logitech.com)  
**PRICE:** \$99.95

**REQUIREMENTS:** USB-equipped Mac,  
Mac OS 10.1.2 or later

**GOOD NEWS:** Great keyboard with maximum customization.  
**BAD NEWS:** Heavy mouse. Short wireless range.

**MacAddict RATED**  
●●●●●  
**SOLID**

# X-Arcade

## GAME CONTROLLER

After hearing about the X-Arcade, we knew we had to have it. Built specifically for arcade-style gameplay, it's the kind of controller a retro gamer dreams of: a big, solid device with that classic button-pounding, joystick-jerking action. Though you probably won't be using this puppy for strategy games or the like, if you

### You'll be nothing but thrilled.

long for the glory days of 1980s arcades you'll be in hog heaven.

Since the Mac recognizes the X-Arcade as a keyboard, it's fully plug-and-play, no driver required. However, you'll have to assign controls in every game you play with the X-Arcade, and it pays to familiarize yourself with your game's capabilities beforehand. Flawless two-player arcade

action rewarded our patience, and the default mode—programmed with the MAME (multiple arcade machine emulator) in mind—hit the mark perfectly. The X-Arcade plays great with classic games as well as Mario-style platformers and shoot-'em-ups, but it really shines with fighting games.

The controls are just as durable as the machines we pounded on 20 years ago; you can even swap out the buttons with standard arcade parts for more geeky goodness (though the stick is off-limits). A huge added bonus: This controller will work with your Xbox or other gaming systems,

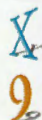


PHOTOGRAPH BY MARK MADEO

**Plug this baby in and you'll shmup the night away.**

provided you have the right adapters. And if you're *really* serious, XGaming offers an X-Arcade cabinet for \$2,995.95, kicking in three adapters for your trouble.

The X-Arcade was clearly made by gamers for gamers, and if you love that old-school Aladdin's Castle feeling, you will be nothing but thrilled with this product.  
—Leslie Osborn and Matt Osborn



**COMPANY:** XGaming  
**CONTACT:** 866-942-6464,  
[www.x-arcade.com](http://www.x-arcade.com)  
**PRICE:** \$149.94

**REQUIREMENTS:** USB-equipped Mac, PC  
serial-USB adapter (sold separately, \$49.95),  
games with programmable button allocation

**GOOD NEWS:** Hella fun. Fully programmable.  
Tough enough for hard-core gamers.  
**BAD NEWS:** Tricky initial setup. Pricey  
Mac adapter.

**MacAddict RATED**  
●●●●●  
**GREAT**



# Yamaha CRW-F1ZDX CD Recorder

CD-RW DRIVE

When we first heard about this Yamaha CD recorder, it appealed to the right side of our brains. A burner that efficiently handles the tedium of archiving while letting us etch graphics on our CDs? Cool! Well, kind of...

As it turns out, it's the left side of our brain that's most impressed with the CRW-

## A good, reliable CD burner.

F1ZDX. With its 44X write/24X rewrite/44X read speeds, the CRW-F1ZDX burned 562MB of data to a 48X CDR in less than 3 minutes and a 24X CD-RW in 3.5 minutes.

The CRW-F1ZDX also performed admirably when ripping a CD via the included Toast

Lite—a little over 2 minutes for almost an hour of music. When burning audio discs, the Advanced Audio Master Quality Recording mode allegedly reduces jitter levels and improves audio quality.

In fact, the only disappointment (besides the Pee-Wee Herman length of the included FireWire cable) is the drive's highly touted Disc T@2 feature, which etches graphics and text on the underside (the data side) of a CD. First you burn your disc, then you tattoo your graphic on the unused portion (the outer rim) of a CD-R (the process doesn't work on CD-RWs).

For best results, Yamaha recommends that you use its media and warns that



PHOTOGRAPH BY MARK MADEO

image visibility depends on the disc's dye type. Unfortunately, the tattoos didn't pop as much as we would have liked. Text and some of the cool design templates that ship with the Disk T@2 layout software require some squinting action when burned to a CD. And most of us actually fill up our discs with data—so, unlike our rear ends, they don't have much real estate left for tattooing.

It's a cool idea, but Disk T@2's results aren't mind-boggling. However, if you're just looking for a good, reliable CD burner, this one should serve you well.—Cathy Lu

**COMPANY:** Yamaha  
**CONTACT:** 888-926-2426,  
www.yamaha.com  
**PRICE:** \$279.99

**REQUIREMENTS:** 300MHz G3 or faster, Mac OS  
9.0.4 or later, 64MB of RAM, FireWire or USB port

**GOOD NEWS:** Fast 44X write speeds. Rare 24X  
rewrite. Very reliable.  
**BAD NEWS:** Short FireWire cable. Disk T@2 isn't  
as cool as we hoped.

**MacAddict RATED**  
  
**SOLID**



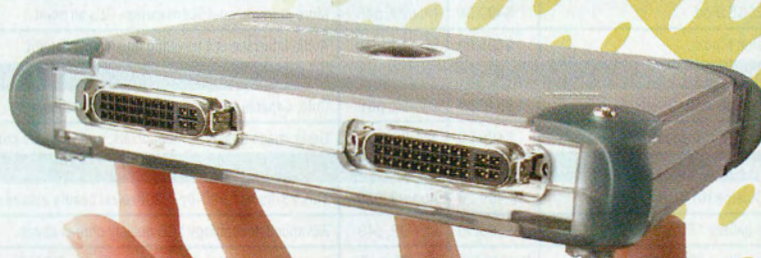
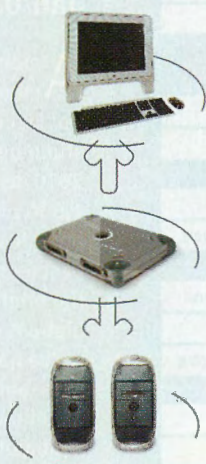
## Handy, Man

Total control for those who have more Macs than greenbacks



model

MiniView™  
2-port ADC KVM Switch



Introducing IOGEAR's two-port MiniView™ ADC KVM Switch. Now you can control two ADC Macintosh systems with just one keyboard, one mouse and one ADC display.

This self-powered KVM switch supports most displays with ADC interface (such as 15 inch Apple Studio Display, and 22 inch Apple Cinema Display), and provides superior video quality of up to 1600 x 1024, DDC, DDC2, DDC2B.

Think of all the iPods you can buy with the money you'll save on monitors, keyboards and mice!

Contact us today for more information!



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# theHotList

## THE BEST OF THE BEST FROM RECENT REVIEWS

### SOFTWARE

#### AUDIO

MOTU Digital Performer 3	\$795.00	Feb/02, p58	Pro audio app has a great array of features.
Roxio Toast with Jam 5	\$189.95	Sep/02, p49	Burn CDs, MP3 CDs, DVDs, and VCDs; edit audio.

#### GAMES

Ambrosia Escape Velocity: Nova	\$30.00	Sep/02, p48	Enjoy the perverse thrill of galactic domination.
Aspyr Clive Barker's Undying	\$39.95	Nov/02, p50	Sophisticated shooter has a sophisticated story line.
Aspyr Medal of Honor: Allied Assault	\$50.00	Oct/02, p43	WWII first-person shooter is a surefire classic.
Aspyr Return to Castle Wolfenstein	\$49.95	Aug/02, p42	What's more satisfying than killing zombie Nazis?
Aspyr The Sims Hot Date	\$29.95	Sep/02, p46	The Sims obey Petula Clark and go downtown.
Aspyr The Sims Vacation	\$29.95	Jan/03, p45	Not the best, but a must-have for the dedicated Sims fan.
Graphic Simulations Black and White	\$50.00	Jun/02, p54	The battle between good and evil can really be a blast.
MacPlay Icewind Dale	\$49.99	Aug/02, p51	Beautifully rendered RPG offers deep gameplay.
MacSoft Max Payne	\$40.00	Dec/02, p42	Max seeks revenge—and gets plenty of it in this FPS.

#### GRAPHICS AND LAYOUT

Adobe InDesign 2.0	\$699.00	May/02, p50	Look out, Quark—Adobe's rival layout tool kicks butt.
Adobe Photoshop 7	\$609.00	Jul/02, p46	Picture-perfect pixel pusher moves to Mac OS X.
Adobe Photoshop Elements 2	\$99.00	Dec/02, p40	It has most of Photoshop's power for \$500 less.
Macromedia Dreamweaver MX	\$399.00	Sep/02, p44	Our favorite Web-design tool gets a strong upgrade.
Macromedia Flash MX	\$499.00	Jul/02, p51	It started in animation; now it can do anything.

#### PRODUCTIVITY AND UTILITIES

Dantz Retrospect Express 5.0	\$79.00	Aug/02, p50	Indispensable backup software goes Mac OS X.
Microsoft Office v. X	\$499.00	Feb/02, p42	The 800-pound gorilla of productivity applications.

#### VIDEO AND ANIMATION

Adobe After Effects 5.5	\$649.00	May/02, p49	Motion-graphics stud improves its 3D powers.
Apple DVD Studio Pro 1.5	\$999.00	Oct/02, p55	Apple's essential DVD-burning app gets even better.
Apple Final Cut Pro 3	\$999.00	Apr/02, p45	Pro-level video editor is a real-time revelation.
Discreet Combustion 2	\$4,999.00	Jun/02, p46	Sometimes the best is expensive—but worth every penny.
Electric Image Universe 4.0	\$995.00	Jun/02, p58	There's a reason why this is <i>the</i> 3D app: It's great.

### HARDWARE

#### AUDIO

Apple 20GB iPod	\$499.00	Nov/02, p45	More storage, cool accessories—it's all good.
Digidesign Mbox	\$495.00	May/02, p59	Audio interface is a traveling musician's delight.

#### DIGITAL CAMERAS

Nikon Coolpix 885	\$549.99	Feb/02, p61	Cute, capable camera captures great images.
Olympus C-4000 Zoom	\$499.00	Jan/03, p52	Great image quality, 4 megapixels, and versatile controls.

#### DISPLAYS

Apple Cinema HD Display	\$3,499.00	Aug/02, p40	This 23-inch, 1,920-by-1,200-pixel beauty inspires lust.
Formac gallery 1740	\$899.00	Mar/02, p49	Advanced-technology LCD display comes cheap.
Formac gallery 2010	\$1,699.00	Jan/03, p47	Bright, fast, and huge—and it costs only \$.0009 per pixel.

#### PRINTERS

Brother 1870N	\$699.00	Aug/02, p45	Need a sturdy laser printer? This one's a workhorse.
Epson Stylus Photo 820	\$99.00	Feb/02, p55	Inexpensive printer outputs great images.
Epson Stylus Photo 2200	\$699.00	Oct/02, p42	The most stunning photo printer we've ever tested.

#### SCANNERS

Canon CanoScan LIDE 30	\$99.00	Nov/02, p52	Entry-level scanner gets the job done inexpensively.
Epson Perfection 2450 Photo	\$399.00	Oct/02, p48	Sophisticated scanner also handles transparencies.

#### STORAGE

OWC Mercury Elite 160GB	\$349.95	Sep/02, p53	Handsome, sturdy drive is whisper quiet.
TDK veloCD	\$315.99	Jul/02, p54	FireWire-equipped CD-RW drive is freaky fast.
WiebeTech MicroGB 40GB	\$399.95	Jul/02, p56	Cool aluminum FireWire hard drive holds speedy innards.

It's big. It's bright.  
It's bold. It's  
bodacious.  
It's \$1,699.



PHOTOGRAPH BY MARK MADEO

## NEW THIS MONTH:

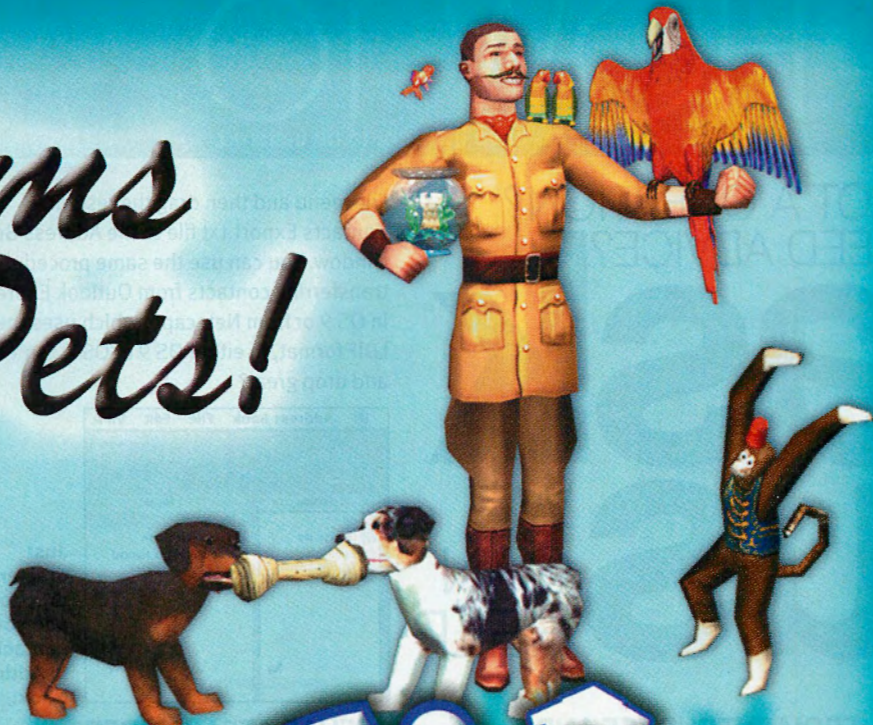
## Formac gallery 2010

**\$1,699**  
**Jan/03, p47**

Among this month's new members of the exclusive Hot List club is Formac's stunning 20.1-inch gallery 2010 display. At 1,200 by 1,600 pixels, it not only provides an enormous amount of screen acreage, but is also the brightest, fastest, and highest-contrast LCD display we've had the pleasure to use—and, yes, we're counting its fellow Hot Lister, Apple's mammoth 23-inch Cinema HD Display. At \$1,699, the gallery 2010 is hardly an impulse buy, but for the cost of one Cinema HD Display you could buy two of these color-perfect beauties and still have enough do-re-mi left over for a night on the town with your main squeeze.



# The Sims Have Pets!



## The Sims Unleashed™

EXPANSION PACK\*



\*Requires The Sims™ to play.

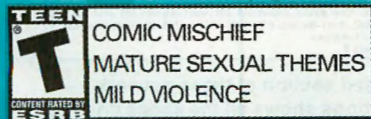


*New Characters, Pets,  
and Untamed Animals*

*Adopt a Dog, a Cat or  
Another Pet for Your  
Sims*



*Bigger Neighborhoods -  
Now with 40  
Residential &  
Community  
Lots*



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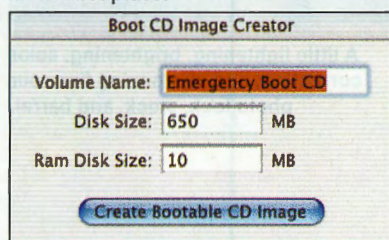
## 54 MacAddict February 2003



## GIVE 'EM THE BOOT

**Can I create a bootable CD with Mac OS X that has usable applications on it?**

OS X's hidden files, strict file-permission settings, and overall complexity have made creating a bootable OS X CD pretty much impossible until now. The free BootCD utility ([www.charlessoft.com](http://www.charlessoft.com)) can create a bootable CD containing applications that actually run. This is especially handy for the OS X troubleshooter who needs to run disk applications like Micromat's Drive 10 (\$69.95, [www.micromat.com](http://www.micromat.com)) to fix, defrag, or examine a hard disk from a bootable CD. Kudos to CharlesSoft for this amazing utility, which we all think Apple should have created in the first place.



**BootCD lets you create a bootable OS X CD with executable applications.**

## FIRMWHAT?

**What is a firmware update?**

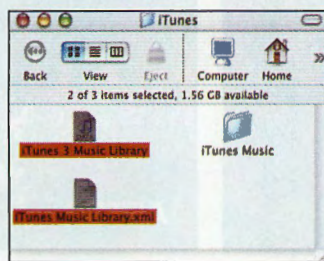
Firmware is software contained within the computer chips of a hardware device such as your Mac, iPod, or optical drive. As with all software, firmware can have bugs that hardware manufacturers fix by releasing firmware updates. Out-of-date firmware is a leading cause of hardware problems, so make sure you check for and download firmware updates. The Software Update control panel in Mac OS 9 or the Software Update system preference in Mac OS X can find and automatically install Apple firmware updates. If you're using an older Mac OS, search [www.info.apple.com](http://www.info.apple.com) for firmware updates.

## SAME ITUNES, DIFFERENT COMPUTER

**How do I transfer my iTunes libraries, playlists, and ratings from my old iMac to my new G4?**

It's easier than you think. All of your iTunes information is stored in two small files, iTunes 3 Music Library and iTunes Music Library.xml, which reside in your Users > user name > Music > iTunes folder. Transfer these two files to your new machine, and iTunes will behave just like it did on the old

machine. Be aware that iTunes keeps track of your stored MP3 files by their paths, so the easiest way to ensure that iTunes is following the right path is to make sure you've stored all of your MP3s inside the Users > user name > Music folder on both machines. Check out Apple's iTunes AppleScripts ([www.apple.com/applescript/itunes](http://www.apple.com/applescript/itunes)) for easy ways to automate iTunes.



**Transferring iTunes information is easy if your music follows the right path.**

## DIVX AND CONQUER

**How do I view DivX (AVI) movies on my Mac?**

For some reason Apple has chosen to ignore DivX, a codec format that provides high-quality video compact enough for Internet use. You can download free software for viewing DivX movies from the Divx.com Mac page ([www.divx.com/divx/mac](http://www.divx.com/divx/mac)). For those wishing to delve further into DivX-encoded content, check out the Doctor DivX II utility (free, <http://doctor.3ivx.com>), which lets you examine, fix, and even extract content from DivX-encoded movies.

## GOING WHERE NO AIRPORT'S GONE BEFORE

**How do I install AirPort if my computer isn't AirPort-ready out of the box?**

If your computer has an available USB port or PCI slot, you've got an AirPort option; however, don't go asking Apple about it. Check out the MacWireless 802.11b USB Adapter (\$199, [www.macwireless.com](http://www.macwireless.com)). All you need is at least Mac OS 9.0.4 (OS X drivers should be available soon), and you'll be on your way. The \$139 MacWireless 802.11b PCI card works too.

**Submit** technical questions or helpful tips directly via email ([askus@macaddict.com](mailto:askus@macaddict.com)) or c/o MacAddict, 150 North Hill Dr., Brisbane, CA 94005.

Six years of tech support for Apple, Power Computing, and a Texas school district have given Buz Zoller Mac superpowers.

# ThisMonth

## 56 Fix Funked-Up Photos

Did you get a digicam for Christmas? If you're looking to make your pictures be all that they can be, we address four of the most common digital-image problems and tell you how to fix 'em. Plus, we show you how to get the best results from any printer.



## 62 Share One Internet Connection in Jaguar

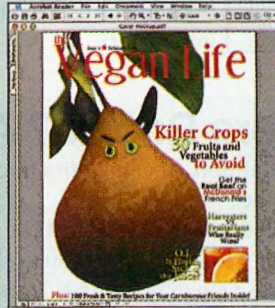
Sharing one Internet connection can bring out the worst in a household of people. Luckily, with Jaguar everyone can



have their Web 24-7, which makes sharing a solitary (and punch-free) affair.

## 66 Create PDFs

Admit it—you have friends and/or acquaintances who do Windoze or plunk around on that penguin platform (we do too). If you want to share docs and preserve their formatting, turn them into PDFs. We show you three ways.



## 69 Find Files Faster via the Terminal

Need a good reason to explore the Terminal? How about the fact that it can save time when you're searching for files on your vast 40GB hard drive? Your wish is the Terminal's command.







PHOTOGRAPHY BY KRIS FONG

A little lightening, brightening, color correcting, and sharpening fixes our photo lock, stock, and barrel.

# Fix Funked-Up Photos and Print Perfect Pics

by Kris Fong

Congratulations, you got a digital camera—now what? While snapping pics can be as simple as pressing a button, the process of actually turning these snaps into good-looking digital-photo files or real-life prints



can instill some misguided fear into the uninitiated. We know—we've been there. In reality, the learning curve is about as treacherous as a bunny-hill ski slope in summer.

Whether you're a new digital-camera owner or on your third device, our quick and easy fixes to common digital-photo problems will come in handy. We also show you how to get the best possible prints from your printer. And even if you don't have a camera, you can experiment with fixing up a few of the trashy photos we put on the Disc. We used Lemke Software's way-affordable GraphicConverter to illustrate our solutions, but you can apply the same techniques with many other image-editing apps that have comparable tools.

## Camera Rookie? Answers to Urgent Questions

**I saw, I snapped, now how the heck do I get my pics into my Mac?**

For most USB cameras, connect the camera (via USB cord) to your Mac's USB port. The camera should show up on your desktop like a mounted volume. From there, simply drag the files from your camera volume onto your hard drive to copy them. If your Mac doesn't recognize the connected camera (the drivers may not be Mac compatible) and if the camera has removable memory, get a compatible USB memory-card reader, which functions like a removable disk drive. SanDisk ([www.sandisk.com](http://www.sandisk.com)) makes readers for almost every type of memory card.

**OK, smartie, my Mac doesn't have USB.**

**Am I stuck with film forever?**

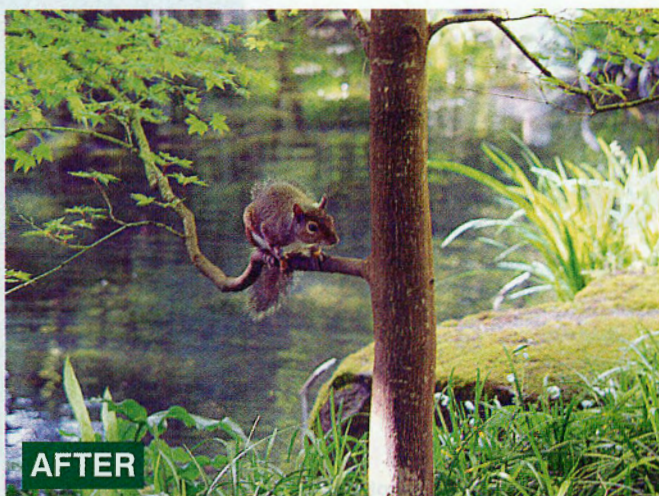
Not necessarily. It depends on how many tree rings your Mac sports. If you have a beige Power Mac with an empty PCI slot,

you can buy a USB card that should work with any memory-card reader if you're running Mac OS 8.6 or later. Keyspan sells a two-port one for \$29 ([www.keyspan.com](http://www.keyspan.com)). For truly ancient machines, bypass your Mac altogether and purchase one of the newfangled printers, like the Epson Stylus Photo 925 (\$299, [www.epson.com](http://www.epson.com)), that let you insert a memory card and print photos directly from it.

**Now that I have all my pics on my Mac, how do I get rid of the ones on my camera without having to delete them one by one?**

Before you delete them, we recommend opening each newly transplanted hard-drive image to make sure none of them got corrupted in transfer (a rarity). Once you've validated them, select all the files in your camera or memory-card volume (Command-A), drag them to the Trash, and empty it.





PHOTOGRAPH BY KRIS FONG

Leaves? Yes. Grass? Check. Algae-infested pond scum? Um, OK. Squirrel? Well, maybe he envies his nut-hoarding neighbor.

## Fix Whacked-Out Colors

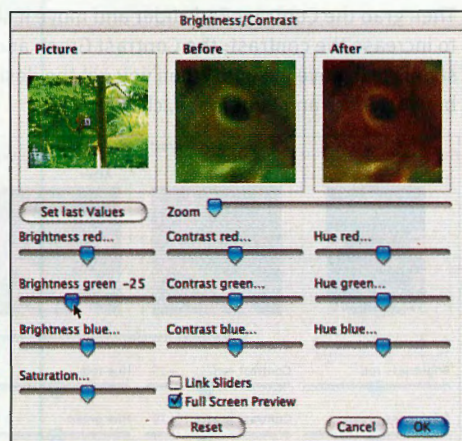


### WHAT YOU NEED

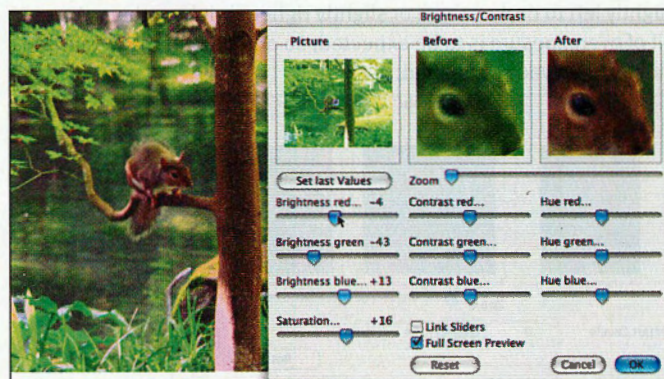
- GraphicConverter (\$30, [www.lemkesoft.com](http://www.lemkesoft.com))
- Off-color digital photo

**1 Lessen the Offending Color** Sometimes digital cameras produce weird color shifts. Maybe you set the wrong white balance or perhaps the camera misinterpreted color data. Whatever the case, open your off-color image or *green.tif* (on the Disc) in GraphicConverter. From the Picture menu, select Brightness/Contrast to open the dialog. Uncheck the Link Sliders box and check the Full Screen Preview box. Then choose the offending Brightness color slider (Brightness Red, Brightness Green, or Brightness Blue) and move it left to tone down that particular shade. To fix our photo, we moved the Brightness Green slider to the left.

To rid Mr. Squirrel of his strange moss-covered coating, we brought down the brightness of the green tones.



**2 Balance the Colors** Once the dominant color cast is gone, balance the rest of the colors by fine-tuning the other Brightness sliders. Move the Brightness Red slider left to add more cyan (bluish yellow) tone; move it right for more red. Move the Brightness Green slider left for more magenta or right for more green. Move the Brightness Blue slider left for more yellow or right for more blue. The sun can cause blue color shifts (add yellow), fluorescent light can turn things green (add magenta), and home lighting can make stuff look orange (add a little blue and cyan). Move the Saturation slider left to tone down the overall color or right to boost it. Once you've found the right slider recipe for realistic colors, click OK.



Fine-tune the image's color balance by tweaking each Brightness slider until things look real.



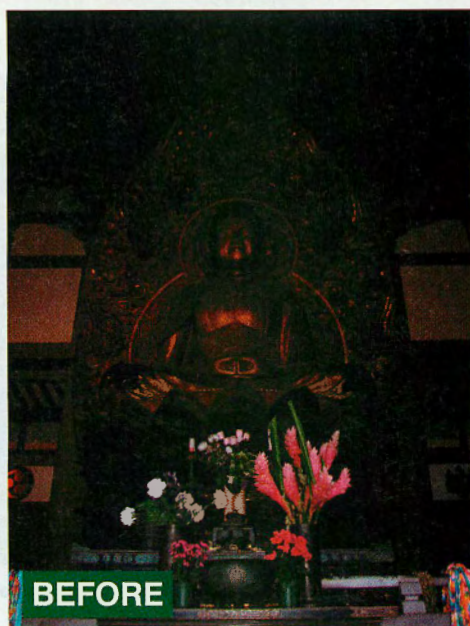
# Brighten Dark Images

EASY

## WHAT YOU NEED

- GraphicConverter (\$30, [www.lemkesoft.com](http://www.lemkesoft.com))
- Underexposed digital photo

All is not lost if your subject's in the dark. You can use Levels to shed light on most situations.



BEFORE



AFTER

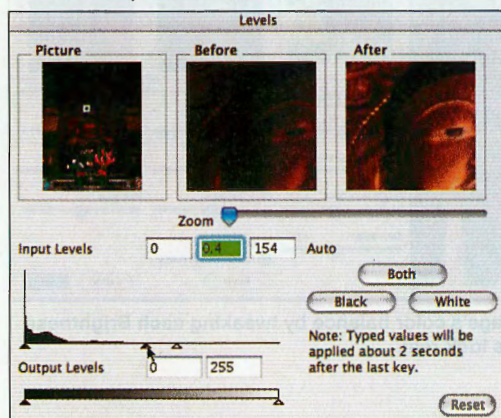
PHOTOGRAPHY BY KRIS FONG

**1 View the Tonal Range** Unevenly lit situations can sometimes lead to underexposed images. To fix the problem, open your dimly lit photo or dark.tif (on the Disc) in GraphicConverter. From the Picture menu, select Levels to open the Levels dialog. The histogram (the mountainlike graph) represents the image's tonal range with black image data (such as shadows and Steve Jobs's turtleneck) on the left, gray data (such as grass and brick) in the middle, and white data (such as sunlit snow) on the right. In the Picture preview screen, drag the white square onto a dark area to zoom in on its details, and then check the Full Screen Preview box.



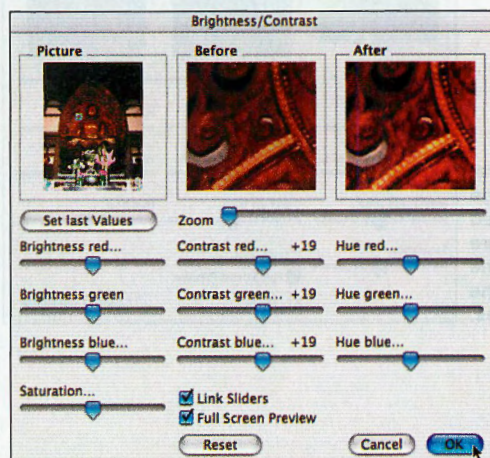
Move the white square onto a prominent but dark area of your subject to zoom in on its details.

**2 Reintroduce the Highlights** Underexposed images display most of their tonal info on the histogram's left, so move the white (right) slider to the left just underneath where the "mountain" ends—the gray (middle) slider will follow accordingly. If some image areas get blown out (too white), readjust the white slider to the right until you reach a decent compromise. Fine-tune the midtones by moving the gray slider either slightly left to darken them or slightly right to brighten them. A wee bit of overexposure is to be expected, so don't sweat the details too much. When you're satisfied, click OK.



Readjust the white slider to avoid overexposing the foreground flowers, and compensate by moving the gray slider to the right to brighten the Buddha.

**3 Fix the Contrast** If you're totally happy with the results, you can skip this last step, but if your photo looks a bit dull, punch up the contrast. From the Picture menu, select Brightness/Contrast. In the resulting window, check the Contrast Red slider and Full Screen Preview boxes. Then grab the Contrast Red slider and move it slightly to the right to increase the contrast; the Contrast Green and Contrast Blue sliders will move in sync. When you get the desired differentiation between dark and light tones, click OK.



If your photo looks dull or ashy, increase the contrast between its dark and light tones.





BEFORE



AFTER

Though the left image looks dandy on its own, it pales in comparison to its sharper sibling on the right.

## Sharpen Fuzzy Images

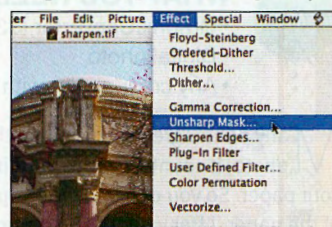
EASY

### WHAT YOU NEED

- GraphicConverter (\$30, [www.lemkesoft.com](http://www.lemkesoft.com))
- Soft-focused digital photo

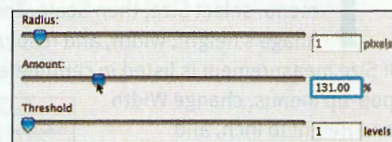
**1 Select Unsharp to Sharpen** For those truly out-of-focus messes, just let it be and call it art. For everything else, a bit of sharpening can bring out pristine detail in good images and can greatly improve subjects in most pictures

that are a bit fuzzy. Open your own slightly blurry image or fuzzy.tif (on the Disc) in GraphicConverter. Select Unsharp Mask from the Effect menu to open the dialog. This filter effect creates a blurry (unsharp) copy of your image and layers it onto the original. It then subtracts the blurry image's brightness values from the original's. The resulting increase in tonal contrast (lights and darks) creates the illusion of edge sharpening.



Sharpen Edges looks tempting to the focus-impaired, but you really want Unsharp Mask.

**2 Sharpen Pixels Gradually** In the Picture pane, drag the white square over an area with good detail to zoom in, and then check the Full Screen Preview box. The Radius slider controls the amount of pixels to affect surrounding the *edge pixels* (those at the borders of different-colored areas). The Amount slider controls the tonal contrast of edge pixels. The Threshold slider controls the amount of color difference that describes edge pixels. Start with Radius set to 1 and Threshold set to 1 or 2. Then slide the Amount slider somewhere between 100 and 200 percent to sharpen. If your picture is really blurry, step up Radius a notch or two. Keep in mind that images look sharper onscreen than in print. When you like what you see, click OK.



Start with small numbers and then gradually increase the amounts—too much sharpening increases noise.



BEFORE



AFTER

We love the devilish grin, but the eyes on the left are in need of exorcising.

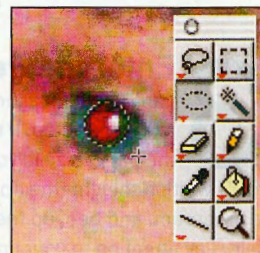
## Destroy the Evil Red-Eye

EASY

### WHAT YOU NEED

- GraphicConverter (\$30, [www.lemkesoft.com](http://www.lemkesoft.com))
- Digital photo of a subject with red-eye

**1 Surround the Enemy** Red-eye results when the flash reflects off blood vessels in the retina back into the camera lens. To combat it, use your camera's red-eye-reduction flash mode to dilate your subject's pupils before capturing the shot. To fix it, open your photo or red-eye.tif (on the Disc) in GraphicConverter. Select the zoom tool (the magnifying-glass icon) from the tool palette and click the red eye repeatedly until you can see the redness in all of its pixelated glory. Choose the ellipse selection tool (the dotted oval), hold down the Shift key, and click and drag to draw a circle that completely surrounds the red area.



Using the ellipse tool, draw a round selection that completely surrounds the red glare.

**2 Get the Red Out** From the Effect menu, select Red Eye; GraphicConverter seeks out all red-tinged areas in your selection and applies varying shades of gray to knock out the glare while matching the shading. Depending on how bad the red-eye is, you may get the desired result with just one application or you may have to make another ellipse selection in a different area, then apply the Red Eye effect again until you've obliterated the glare.



GraphicConverter's Red Eye effect paints over the red areas to quell the demonic glare.



# Print Pristine Pics

EASY

## WHAT YOU NEED

- GraphicConverter (\$30, [www.lemkesoft.com](http://www.lemkesoft.com))
- Digital photo
- Any color printer with any size paper

Many printer greenhorns share the same initiation tale—after you command your Mac to print a photo, it counters with a warning, stating that your image is bigger than the printable area of your paper. So you either a) crop your photo to fit, or b) scale down your image to the height and width of the paper. After you print your photo, you curse your friend, sales dude, or us for recommending what you now deem to be the crappiest printer in the world.

The reality? It ain't the printer—it's the image resolution. Many digital cameras produce images at a default 72 ppi (pixels per inch)—the same resolution as your monitor screen. For example, a 2-megapixel camera can produce a 1,600-by-1,200-pixel image at 72 ppi (or a roughly 22-by-17-inch image, if you do the math), while a 5-megapixel model may produce a 2,560-by-1,920-pixel image at 72 ppi (or a roughly 36-by-27-inch image). But to get a photo-realistic print, your image needs to be at least 200 ppi. Here's how to ensure your images end up in your photo album—not in the recycle bin.



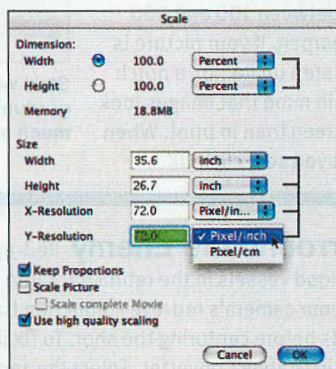
When it comes to photo-realism, optimal settings for image and printing resolution are crucial.

## 1 Size Up Your Image

Open your photo or one of ours (on the Disc) in GraphicConverter. From the Picture menu, select Size, then Scale. The Scale dialog displays your image's height, width, and resolution in the Size subsection.

If Size measurement is listed in centimeters, from the corresponding pop-up menus, change Width and Height to Inch, and X-Resolution and Y-Resolution to Pixel/Inch. Check the Keep Proportions box and uncheck the Scale Picture box. Then type 200 in the X-Resolution field; the Y-Resolution automatically displays 200 to keep the proportions.

Our 5-megapixel shot looks like it can print a poster-size image, but at this size, it's only 72 ppi.

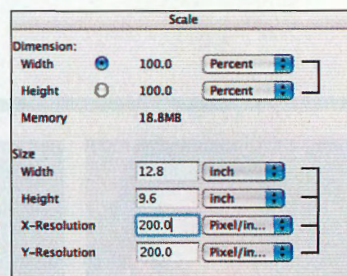


## 2 Get the Limits

Notice that the Width and Height measurements change to reflect the new calculation. You almost tripled the resolution, reducing your image's height and width to about one-third of its original size.

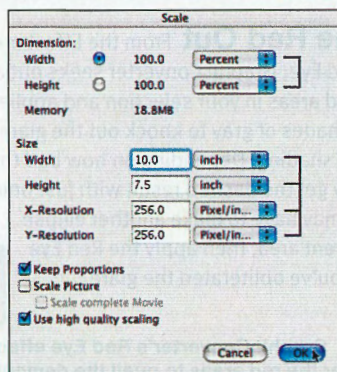
These new dimensions represent the maximum size at which you can print the image and still retain (for the most part) photo-realism (a 2-megapixel pic will yield a maximum 5-by-7-inch photo). The higher the ppi resolution, the better the print quality (we magazine folk shoot for 266 ppi). You can upsize an image a little to interpolate pixels but don't go too big, or you'll degrade the quality.

When we enter the minimum 200-ppi resolution, our image decreases to almost a third of its original size.



## 3 Enter the Perfect Fit

If the current Width and Height measurements are fine, click OK and go to the next step. If the measurements are larger than the paper size in your printer, type the target print size's width or height (the app will reconfigure the opposite side in proportion and beef up the resolution) in the corresponding field. Pay attention to your image's orientation (landscape or portrait). Also keep in mind that many printers won't print to the very edge of the paper—if you get a warning about image clipping, downsize your image by an inch. Click OK.

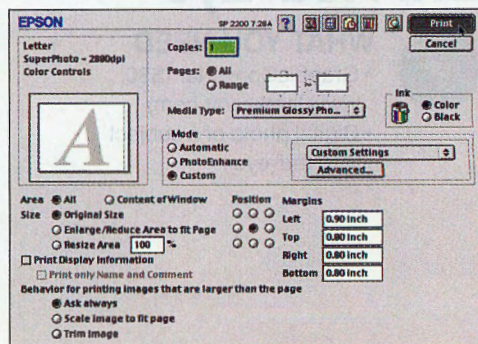


We typed 10 in the Width field so our landscape-oriented photo wouldn't suffer image clipping when printed on 8.5-by-11-inch paper.

## 4 Print It Out

From the File menu, select Page Setup to open your printer driver dialog. Though your settings options may differ from the ones shown in our screen, select the correct paper size from the Paper Size (or similar) drop-down menu, and click the correct Orientation icon for your image. For the ultimate quality, use photo paper that's optimized for your printer and select it from the Media Type (or similar) drop-down menu. Set the printer driver to Best quality, and set the print quality to the highest possible dpi (dots per inch) setting for your paper choice. Click OK, select Print from the File menu, and click Print.

Your printer driver's dialog may look different but contains similar information.



Though she knows why some photos turn out dark and fuzzy, Kris Fong still can't figure out where the random thumbs come from.



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EM23FXX1Y



# Share One Internet Connection in Jaguar

by Ian Sammis



MultiMac family with mono modem? Jaguar provides a nice way to share.

PHOTOGRAPH BY MARK MADEO AND KRIS FONG

Ten years ago, if you asked folks how many computers they had, they'd think you were nuts—they either had a computer or they didn't. Now that every family member, pet, and houseplant has one, a new problem has surfaced—Internet connections. Everyone in your household wants Web access, but at \$20 to \$50 per month for Internet service, getting your fill of [www.hampsterdance.com](http://www.hampsterdance.com) isn't exactly cheap. Short of buying four or five phone lines, purchasing a dedicated hardware router, or “accidentally” knocking your spouse offline, what's a member of a multiple-Mac family to do?

Anyone who's watched enough *Sesame Street* knows the answer—you share. But in this situation, it's not the “you go first and I'll go second” type of sharing. Nope. You can hog all the online time you want, and your housemates can all do the

same thing without pulling any punches or putting on puppy-dog eyes.

How? With a little trick called network address translation (NAT). Basically, you're using a Mac running OS X as a router. Hooked up to the Internet, this Mac accepts Internet requests from the other connected machines, rewrites the requests so they appear to be coming from it, and then sends the replies back to the originating machines. With NAT, you only need to shell out cash for one Internet account, and no one can hack into the other machines unless they first make their way into your Mac router.

Mac OS X has had built-in NAT software for some time, but in early versions Apple buried it deep within the Unix layers. Mac OS 10.2, Jaguar, changed all that by providing a simple preference panel that allows all of your Macs to share an Internet connection easily. Here's how to set it up.



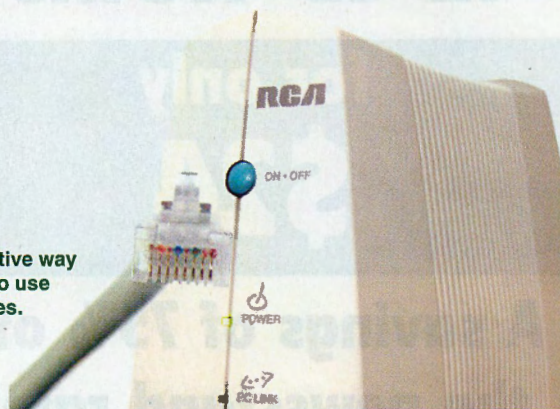
## Share a Dial-up Connection across Ethernet

EASY

### WHAT YOU NEED

- Mac OS 10.2 or later (\$129, [www.apple.com](http://www.apple.com))
- Macs with Ethernet ports
- Ethernet cables

The most cost-effective way to share Web service is to use Ethernet (RJ-45) cables.



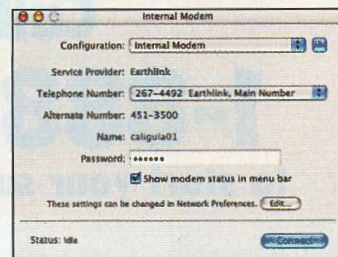
PHOTOGRAPH BY KRIS FONG

Setting up a Mac-based router is easy if you're connecting to the Internet via a dial-up account. However, keep this in mind: You know how slow your modem connection is when you alone use it; be prepared for a slowdown when you start sharing it. Still, this is the best solution for folks on a really tight budget.

First, connect your Macs using standard Ethernet cables—get a cheap hub if necessary (Netgear has four-port hubs for about \$30; [www.netgear.com](http://www.netgear.com)). Once everything's tethered, here's how to share the connection.

**1 Dial In** On your main Mac (the one with the modem connection), dial into the Internet via the Internet Connect app (in the Applications folder) or by selecting Connect from the modem menu. Don't continue to the next step until you've confirmed that the connection is working.

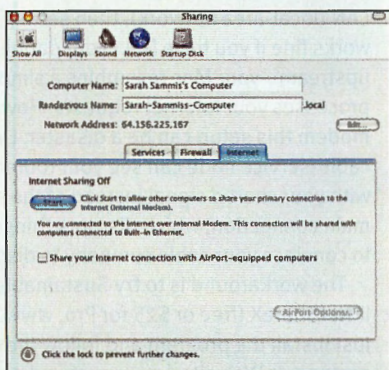
Before you can share, you need to dial into your service and establish a connection.





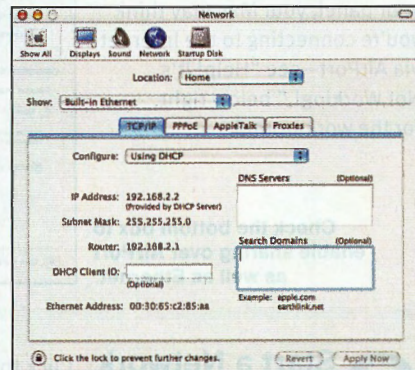
**2 Start Sharing** Once you've established a connection, select System Preferences from the Apple menu, then click the Sharing preference to open its panel. Click the Internet tab; under Internet Sharing Off, click the Start button to enable your Mac to share its Internet connection with others. That's it for this puppy.

Big Bird would be proud—clicking this Start button forces all your Macs to share one Internet connection.



**3 Invite Other Macs** To allow the other Macs to partake in your main Mac's generosity, go to each connected Mac and open System Preferences. Click the Network preference to open its panel, and select Built-in Ethernet from the Show pop-up menu. Then click the TCP/IP tab and choose Using DHCP from the Configure pop-up menu—you're ready to surf.

To get your other connected Macs in on the party, just set their Network preferences as shown.



## Share Service with AirPort



### WHAT YOU NEED

- Mac OS 10.2 or later (\$129, [www.apple.com](http://www.apple.com))
- Macs with AirPort cards installed (\$99, [www.apple.com](http://www.apple.com))

Sharing a connection over Ethernet works great—if you don't mind a spaghetti tangle of Ethernet cords crisscrossing through your house. For those who despise clutter, creating a wireless AirPort network can be a lifesaver—especially if you live in an older dwelling with telephone jacks in strange places, like out in a hallway. The good news is that you don't even need an AirPort Base Station to set up your network.

Whether you have a dial-up connection or broadband (DSL or cable modem), you can share that connection via an AirPort card with any other Mac that has an installed card, as well as with Ethernet-connected Macs. Here's how to configure these wireless bunches for your sharing soiree.

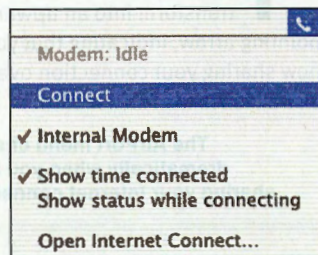


Forget the Base Station. Macs with AirPort cards can relay signals to each other.

PHOTOGRAPH BY KRIS FONG

**1 Dial In** Your main Mac (the one connected to the Internet) must have an AirPort card installed to make this work. On this machine, dial into the Internet via the Internet Connect app or by selecting Connect from the modem menu. If you have an always-on broadband connection, just launch your Web browser to verify that your connection is active.

As we said before, you can't do any sharing until you're connected to the Net.



## Mac or Dedicated Router?

With OS X (and some earlier Mac OSs), you don't need to buy a hardware router, a device that distributes one Internet connection among all connected machines. Software programs such as Sustainable Softworks IPNetRouter (\$89, [www.sustworks.com](http://www.sustworks.com)) and Vicomsoft SurfDoubler (\$69, [www.vicomsoft.us](http://www.vicomsoft.us)) have been turning Macs into routers for some time. However, using your Mac as a router has advantages and disadvantages.

On the bright side, employing one of your Macs is certainly cheaper—if your needs are simple, Jaguar will handle the sharing for free. Plus, this doesn't lock you into buying a hardware device

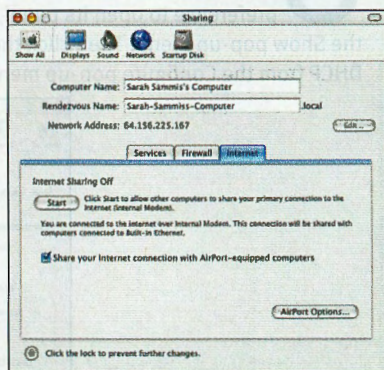
that may become irrelevant if your network access changes (for example, if you move to a new town and need to change how you connect to the Internet).

On the other hand, a Mac-based router only works when that Mac is on, so this method can lead to agonized screams from all corners of the house when someone absentmindedly shuts down that all-important machine. If you have broadband service (DSL or cable modem), you may experience some problems when you try to divvy up service without the extra hardware (see "The Trouble with Broadband," p64).



## 2 Share the Air

Select System Preferences from the Apple menu, then click the Sharing preference to open the panel. Click the Internet tab and check the Share Your Internet Connection With



**Check the bottom box to enable sharing over AirPort as well as Ethernet.**

## 3 Start a Network

Click the AirPort Options button; in the Network Name field, give your AirPort network any reasonable name. Unless you're in an overgenerous mood, check the Enable Encryption (Using WEP) box to prevent folks within 150 feet of your network from trespassing. Type a password you'll easily remember, select 128-bit from the WEP Key Length pop-up menu, and click OK.



**Make sure you enable encryption—unless you don't mind if anyone within 150 feet watches you browse.**

## 4 Broadcast Your Signal

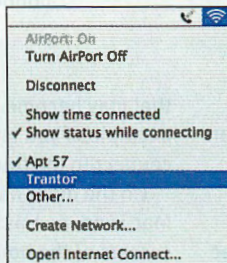
Back in System Preferences, open the Sharing preference and click Start in the resulting pane. The AirPort icon in the menu bar should transform into an upward-pointing arrow, indicating that you are now sharing your connection over the airwaves via the AirPort card.

**The AirPort menu changes dramatically when you begin sharing your Internet connection.**



## 5 Pick Up Hitchhikers

Any Mac that has an AirPort card installed should be able to pick up your main Mac's new network signal. On these Macs, just connect to the new network by choosing its name from the AirPort menu, and then entering the password in the subsequent dialog. Surf's up!



**If you've done everything right, your new AirPort network should appear in the AirPort menus of your other machines.**



Former MacAddict editor and SFSU Mathematics grad student Ian Sammis still wants to know if anyone ever got past the skull in Grid Wars.

## The Trouble with Broadband

Sharing an Ethernet-based connection, like DSL or cable modem, can be tricky without a dedicated hardware router, since most Macs have only one Ethernet port. Sharing broadband by hooking your Internet connection to your LAN (local-area network), then setting up a Mac router, works fine if you have DSL; your dabbings leave no trace upstream—your Mac resembles a simple switch that processes your Internet requests. However, on a cable modem this setup can be a disaster. Everyone on your cable-service node can see your router, and may wind up with your shared signal instead of the service provider's main connection, which disrupts things. This is a good way to convince your cable company to disconnect your service.

The workaround is to try Sustainable Softworks' IPNetShareX (free or \$25 for Pro, [www.sustworks.com](http://www.sustworks.com)). Just install the program and follow the directions on the company's Web site ([www.sustworks.com/site/prod\\_gnat\\_setup.html](http://www.sustworks.com/site/prod_gnat_setup.html)) to set up your machines, and make sure you don't hear any shrieking from your neighbors.

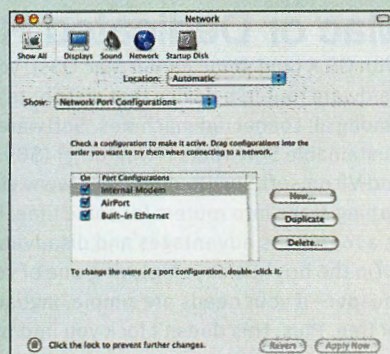
A two-connection router is a more traditional solution. Here you use two Ethernet ports to share a connection—one connects to your broadband line while the other connects to your LAN. You'll need to install a PCI Ethernet card to serve as a second network interface if your Macs have only one Ethernet port.

## Help! It's Not Working!

Having troubles sharing? It could be that your Mac isn't accessing the right port when trying to establish an Internet connection after you set up a LAN. Fire up the Network preference in System Preferences, and select Network Port Configurations from the Show pop-up menu. When your Mac attempts to connect to the Internet, it will try each port listed in this pane, in the order displayed, until it finds an active one.

However, setting up a LAN creates an active port, and if your Mac sees this one first, it assumes that's the one it should use for the Internet. Therefore, on the Mac that's doing the sharing, make sure the port leading to the Internet is at the top of the list—just drag and drop it there if it isn't. Many networking problems boil down to an incorrect list order.

**You can resolve a number of OS X networking issues by setting up the Network Port Configurations panel properly.**





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# Create PDFs

by Carol S. Holzberg

There's nothing tougher than trying to share documents across different computer platforms with different operating systems—except trying to convince Steve Jobs to buy a PC. How can you make a business report you've spent hours designing on your Mac in QuarkXPress—complete with stylized fonts, meticulous formatting, and slick graphics—viewable on every colleague's computer? Easy. Turn your report into a PDF.

A PDF (portable document format) is a read-only document viewable on most computer platforms, networks, and operating systems with Acrobat Reader (free, [www.adobe.com](http://www.adobe.com)). These small files can display the same fonts, formatting, type styles, and graphics as the original without requiring your viewer's computer to have the fonts or the originating app installed.

PDF creation is easy in OS X; the OS contains a simple, built-in PDF generator that can make PDFs from just about any native app. But if you want to create an eBook or manual or need to compress graphics-laden documents for electronic distribution, Adobe Acrobat (\$249) is the way to go. We show you how to create a basic PDF in OS X and an optimized one with Acrobat so you can send your résumé (or any other simple doc) to anyone. And for those of you looking for a way to deliver electronic manuals, eBooks, and other multipage documents, we show you how to build an interactive PDF.

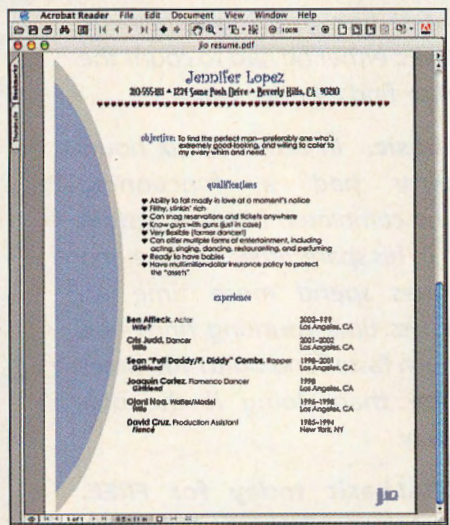


There's more than one way to create a PDF; find out which method works best for your documents.

## How PDFs Are Made

Acrobat works by converting an original document to PostScript format, a programming language that describes a document's text and graphics positions, fonts, type styles, and more. AdobePS (Adobe's PostScript printer driver) then "prints" the document to a file rather than a printer. Acrobat Distiller uses the PostScript information to generate the actual PDF. The process works seamlessly in OS 9.x. Unfortunately for OS X users, AdobePS isn't OS X native, so they must run Distiller in Classic mode to get the PDF job done (Acrobat proper runs in OS X).

OS X uses Quartz, a technology that works similarly to PostScript, to create PDFs. This graphics system contains a set of rules that describe how to display and print graphics and text. Unfortunately, you can't compress graphics using OS X's PDF creator as you can with Acrobat—and that's not exactly optimal if your Internet-bound docs are graphics-heavy. Still, if you're making simple PDFs of résumés or read-me files, you can't beat the convenience—and the cost (zero).



With Quartz, OS X lets you generate PDFs easily from OS X-native apps without the extra expense for a PDF-creation app.

## Create PDFs with OS X



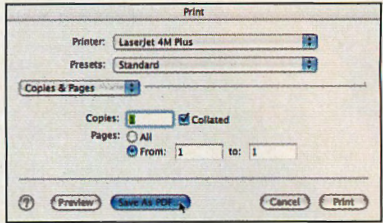
### WHAT YOU NEED

- Mac OS X
- An OS X-native text or graphics document

Who wants to shell out the cash for a PDF-making app if you only need to send out your résumé or another simple document? Thankfully, Mac OS X's built-in PDF-creation tool lets you generate PDF files directly from native OS X apps. However, this method doesn't support layers, transparency, or compression, so prepare for bloat. Still, this is the easiest way to create PDFs from simple docs.

## 1 Select to Print

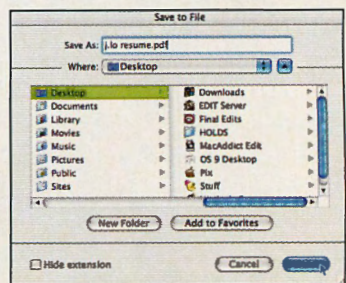
OS X can generate PDFs from just about any OS X-native text or graphics app directly from the Print dialog. Open your document in its originating app and select Print from the File menu. In the Print dialog, click Save As PDF.



It doesn't get any easier than this—just click Save As PDF to generate a PDF.

## 2 Print to PDF

In the resulting dialog, give your file a name followed by the .pdf extension in the Save As field (the extension ensures Windows compatibility). Navigate to where you want to save the file, and click Save. If you get a message stating that some PostScript-specific print settings will be ignored during the print process because you're printing to a non-PostScript printer, just click OK. You're done—simple.



Make sure to add the .pdf extension to the file name so everyone can open your file by simply double-clicking it.



# Create Optimized PDFs in OS X

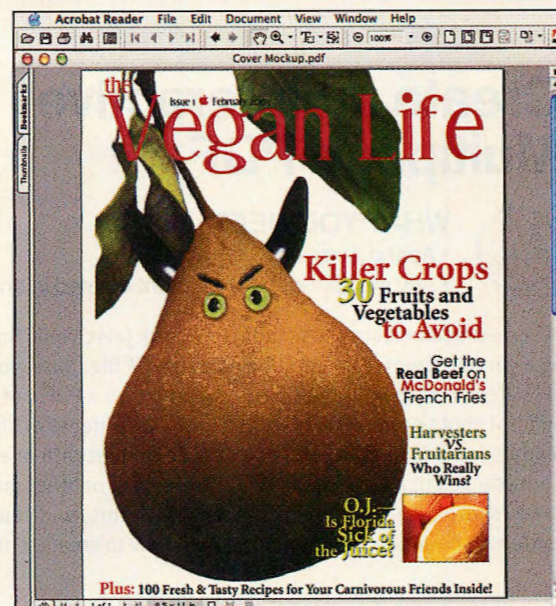


## WHAT YOU NEED

- Mac OS X
- Adobe Acrobat 5.0.5 or later (\$249, [www.adobe.com](http://www.adobe.com))
- Any text or graphics document

With graphics-heavy documents, compression is key if you plan to send PDFs electronically. In OS 9, Adobe Acrobat makes it easy to create featherweight PDFs. However, using the software gets tricky in the land of Aqua—AdobePS (see “How PDFs Are Made,” p66) lacks native OS X support, so you can’t create optimized PDFs with Acrobat Distiller in OS X itself.

All is not lost, however. If you’re concerned about file size and need more options than just OS X’s simple Save As PDF, you can save your doc as a PostScript file in any OS X–native app, and then use Distiller in Classic mode to generate the PDF. Here’s how.

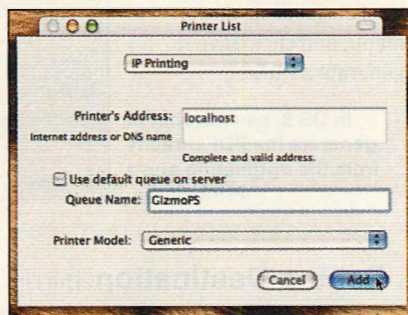


If distributing PDFs electronically is your intention, Adobe Acrobat provides tools to compress graphics-heavy docs.

## 1 Create a Virtual PostScript Printer OS X

allows you to create a virtual PostScript printer (a substitute for AdobePS) if you don’t have one installed. In the Utilities folder (inside the Applications folder), launch Print Center. In the Printer List window, click Add. In the resulting dialog, select IP Printing from the top drop-down menu. In the resulting dialog, select IP Printing from the top drop-down menu. Uncheck the Use Default Queue On Server box, then type a name for your printer in the Queue Name field. In the Printer’s Address field, type *localhost*, click Add, and close the window.

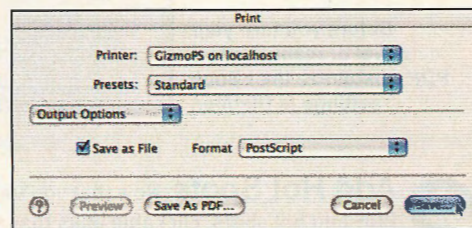
Create a PostScript printer in OS X to replace Adobe’s non-OS X AdobePS printer driver.



## 2 Save a PostScript File

Open your document. From the File menu, select Print. In the resulting dialog, select your new PostScript printer from the Printer pop-up menu, and choose Output Options from the third pop-up menu to display its settings. Check the Save As File box, select PostScript from the Format pop-up menu, and click Save. Give your file a name in the resulting dialog (a .ps extension automatically gets tacked on, so don’t add one), and then click Save.

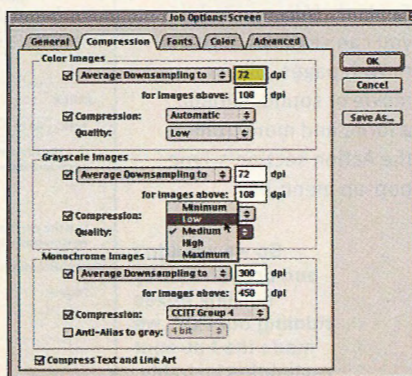
Set your document to print a PostScript file using your newly created PostScript printer.



## 3 Optimize Distiller

Launch Distiller (Classic mode will start up). In the dialog, select Screen from the Job Options menu. From the Settings menu, select Job Options, then click the General tab. Check the Optimize For Fast Web View box and type 72 in the Resolution field. Then click the Compression tab. In both the Color Images and Grayscale Images sections, select Low from the Quality drop-down menu to compress images. Click the Fonts tab, check the Embed All Fonts box, and click OK.

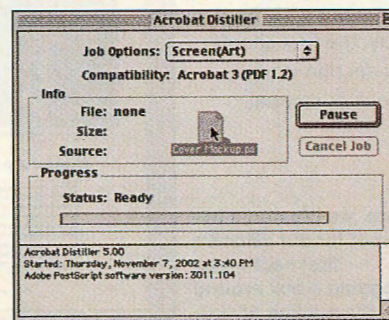
To streamline the file size for electronic distribution, compress graphics by selecting Low for Quality.



## 4 Create the PDF

Because you made changes to the default Screen setting, a dialog pops open, prompting you to save your custom job setting for future use. Type a name in the Name field, keeping the .joboptions extension, and click Save; Distiller places your custom setting, ready for use. Then drag your .ps file onto the Distiller dialog to generate an optimized PDF (in our case, a tiny 48KB file).

Once you set up Distiller, just drag your PostScript file onto it to create an optimized PDF.





# Create an Interactive Multipage PDF



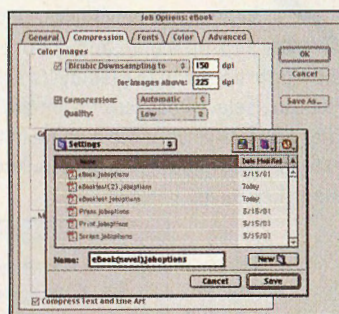
## WHAT YOU NEED

- Adobe Acrobat
- Any multiple-page document created in any application

Creating an electronic manual or eBook (electronic book) in PDF format is not very different from creating a basic PDF file. Sure, you can go the simple route of just converting your multipage document to a PDF, but Acrobat allows you to add hot spots so you can feature a table of contents or chapter index that lets readers jump to specific parts of your document with one click.

If you've got a novel, manual, book report, or other multipage document you'd like to share with readers on different platforms, and you also want to present the content in an organized manner, here's how to create a multipage PDF.

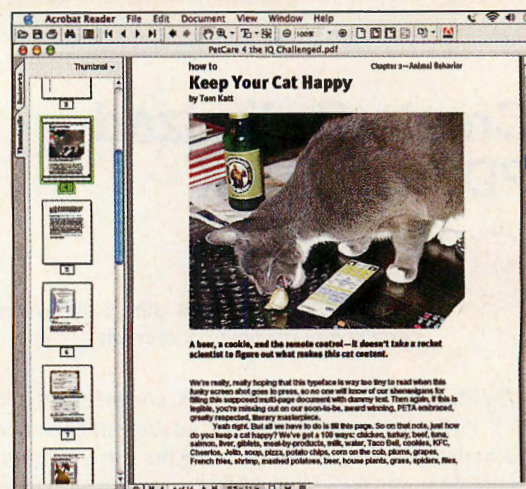
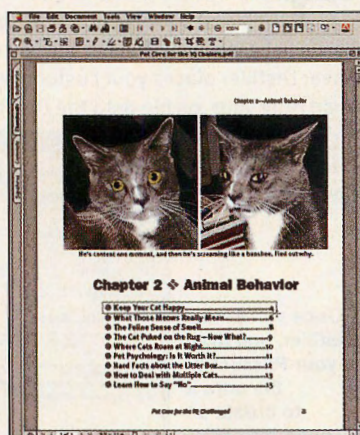
**1 Prime Your Original** For best results, keep your document size small; users should have to do minimal scrolling (if any) when viewing it at 100 percent. Use wide margins and clean, easy-to-read typefaces. Keep graphics at 72-dpi screen resolution. **OS X users:** Create a PDF of your file as shown in "Create Optimized PDFs in OS X," p67, except that in step 3, select eBook instead of Screen from the Job Options menu in Distiller; jump to step 3 in this section when you have your PDF. **OS 9 users:** Go to step 2.



Before you turn your novel or manual into a PDF, customize the eBook settings in Distiller.

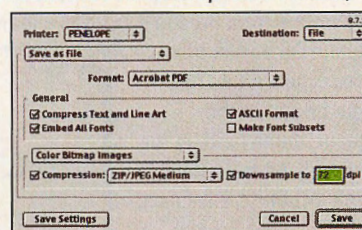
**3 Add Hot Spots** Now that you've got the PDF, add hot spots, clickable links that allow viewers to jump to another part of the document, to provide easy navigation via your table of contents or chapter index. Double-click your new PDF to open it in Acrobat, then select Single Page from the View menu. Click the link tool (the chain-link icon) in the toolbar; the cursor changes to a crosshair. Then drag a box around the text or area you want to turn into a hot spot—say, the first chapter or section in your book or manual.

Here, we created a hot spot for our eBook's first section by dragging a box around the full line of text.



Help readers navigate a multipage document (like an eBook) with ease by turning it into an interactive PDF.

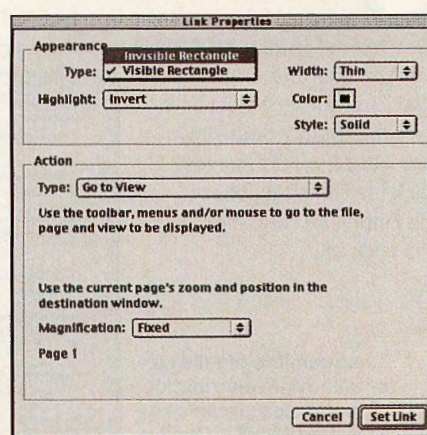
**2 Make a PDF with Acrobat (OS 9 only)** Launch Acrobat Distiller and select eBook from the Job Options drop-down menu in the Distiller dialog. Follow steps 3 and 4 of "Create Optimized PDFs in OS X," p67, to customize settings, but *don't* drag your document onto Distiller to create the PDF. Instead, launch the doc in its originating app and select Print from the File menu. In the resulting dialog, select File from the Destination drop-down menu, select Save As File from the drop-down menu beneath the Printer drop-down menu, choose Acrobat PDF from the Format drop-down menu, and click Save to generate a PDF.



In OS 9, use Acrobat to generate the PDF directly from the originating app's Print dialog.


**4 Set the Destination** The Link Properties dialog will appear, enabling you to choose how the link will look and what it will do when clicked. To make the hot spot invisible (eliminating the intrusive rectangular boxes), select Invisible Rectangle from the Appearance section's Type pop-up menu. To set the destination page where the link should lead, select Go to View from the Action section's Type pop-up menu. Use the arrow buttons in the toolbar to go to the desired page in your PDF document, and then click Set Link. (Alternatively, you can set links to go to Web pages, play a movie or sound, submit a form, and more from the Action section's Type pop-up menu.)

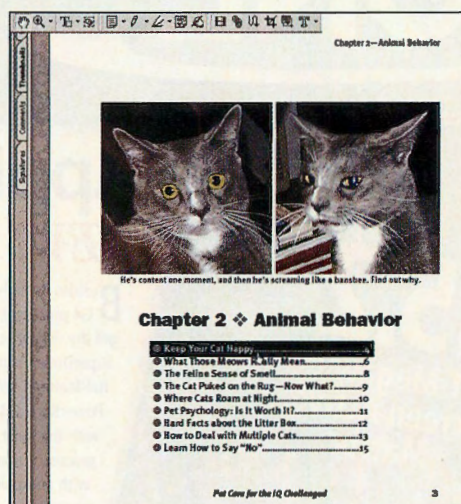
So we wouldn't end up with clunky hot-link boxes riddling our PDF, we made the hot-spot rectangles invisible.



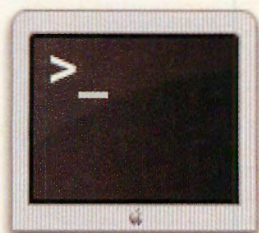


**5 Check It Out** Acrobat will take you back to the page where you created the hot spot. To test the link, click the hand tool in the toolbar, and then click the hot spot to make the jump. If you want to change the activation area, its appearance, the click action's appearance, or the hot spot's link action, select the link tool and double-click any hot spot to call up the Link Properties dialog, where you can make your changes. Repeat step 4 for all other chapters, subsections, illustration references, and anything else to which you want to provide one-click access.

 Carol S. Holzberg, Ph.D., is an educational-technology specialist, a computer journalist, and the technology coordinator at three schools in western Massachusetts.



To check a link, select the hand tool, mouse over the hot spot (the cursor turns into a pointing finger), and click.



Hate waiting?  
Locating files via the  
Terminal is almost  
instantaneous.

# Find Files Faster Via the Terminal

by Kris Fong



## WHAT YOU NEED

• Mac OS X

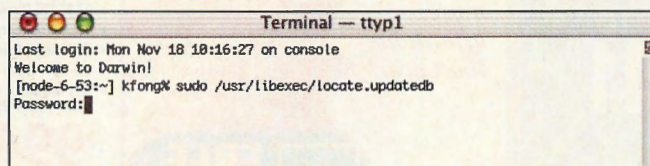
We have a knack for exhibiting Zen-like patience, but our inner Hulk sometimes emerges when we commandeer the Finder to locate files on our vast 120GB hard drive and are left waiting. Luckily, there's a faster way—using the Terminal bypasses the file system's gobbledygook in favor of a file name database to locate what you need superspeedily. The problem is that Apple hardwired your Mac to update this database at 4:30 a.m. every Sunday morning, so if your Mac isn't powered on at this time, the database won't get updated with any files you've created since the last update, and therefore the Terminal won't be able to locate those files.

No problem. Here's how to update the database manually on all local drives (this method won't update mounted servers), using the Terminal for faster finding, and how to locate files once you do.

**1 Update the Database** Launch the Terminal (Applications > Utilities); the window displays your *user name %* followed by a cursor prompt. Type the following command and press Return:

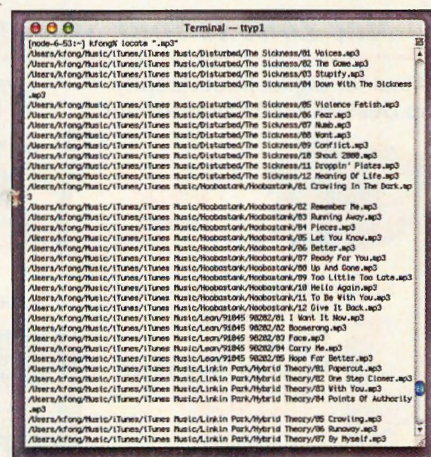
```
sudo /usr/libexec/locate.updatedb
```

Warning: **sudo** gives you temporary root privileges to tweak the system—use it with care, as a negligent typo can do some serious damage. The Terminal prompts for a password—type your admin password and press Return. Your Mac will begin updating your database, which can take a few minutes. Even though it looks like nothing's happening, don't worry—just wait. When it's finished, the Terminal displays your user name and cursor prompt again.




Make sure you have proper privileges—you need an admin password to update the file name database manually.

**2 Locate a File** You can locate a specific file or group of files in several different ways. To locate a file by name in the Terminal, simply type the command **locate** at the prompt, followed by a file name in quotes (the database is case sensitive), and press Return. For example, the command **locate "naked dude"** will locate all files with the words *naked dude* in their name. If you want to locate, say, all your MP3 files, type **locate ".mp3"** and press Return.



The Terminal's **locate** command found every song in our vast MP3 collection instantaneously.

 Kris Fong hopes programming lingo will someday be in a language she understands—like pig latin.



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#664381	600MHz	12.1"	128MB of RAM	20GB HD	CD-ROM	<b>\$944</b>
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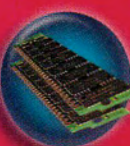


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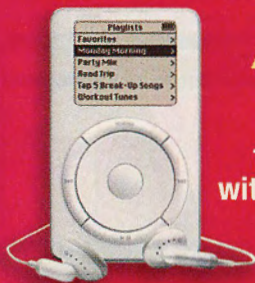
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**FREE 512MB Extra RAM!\***

**\$2,294!\***

#### Apple PowerBook G4 Series

#764348	867MHz G4/768MB Total*/Combo	<b>\$2,294*</b>
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### iMac G3—comes complete with everything you need!

- ▶ 600MHz PPC™ G3 processor ▶ 128MB memory
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### Up to 17" widescreen display!

- ▶ 700MHz or 800MHz PowerPC™ G4 processor
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#643252	700MHz G4/15"/768MB Total*/DVD-ROM/CD-RW	<b>\$1,494*</b>
#643254	800MHz G4/15"/768MB Total*/SuperDrive	<b>\$1,694*</b>
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### Available with SuperDrive!

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- ▶ Combo (DVD-ROM/CD-RW) or SuperDrive™ (DVD-R/CD-RW)
- ▶ Mac OS X and Mac OS 9.2



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\*FREE RAM OFFER—All models require an additional \$39.99 professional installation fee. RAM is free after \$49.95 MacMail mail-in rebate for iMac G4 15" Combo and SuperDrive models. Offer does not apply to iMac G4 15" CD-RW model.  
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Memory for your Legacy Mac and Mac clone!



### PowerMac 5V 168pin DIMMs

You can now add up to a GIGABYTE of Memory to your PowerMac 73/75/76/85/86/95/9600; PowerComputing PowerWave, PowerCenter, PowerTower, SuperMac J700/S900! Our FREE XpostFacto lets you utilize OS X. Don't let low system memory slow you down!



	FPM Non-EDO	EDO
64MB	\$19.99	\$21.99
128MB	\$28.95	\$28.99

Call or visit our [www.MacSales.com](http://www.MacSales.com) to see Memory Upgrades for just about every Legacy Mac Model. We stock the SIMMs and DIMMs for anything from a Mac II to a LCIII to a PowerMac 8100 to that PowerBook 3400 - OWC is your Mac Memory Expert!

### 3.5" SCSI drives



500MB 3.5" Low Profile 50pin \$9.95

Major Manufacturer, 90 day OWC warranty

9.1GB IBM UltraStar 36ES 7200rpm \$49.99  
6.5ms, 2048k Buffer, 1" LP, new w/1yr OWC warranty

18.4GB IBM UltraStar 73LZX 10,000rpm \$87.95  
4.9ms, 4096k Buffer, 1" LP, new w/1yr OWC warranty

18.4GB Seagate Barracuda 36ES 7200rpm \$179.95  
8.5ms, 2048k Buffer, 1" LP, new w/3yr Seagate warranty

36.7GB IBM UltraStar 73LZX 10,000rpm \$119.99  
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Use ATA / IDE (3.5") hard drives in ANY PowerMac with a PCI slot!!



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Acard AHARD Mac ATA/133 controller \$83.99

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• Sonnet Tempo Trio Combo ATA/133 + FW+ USB 2.0/1 \$179.95

If your PowerMac or PowerMac Clone has a PCI slot, any of these cards will let your Mac have up to 4 ATA/IDE devices connected! Fast, Cheap, compatible with OS 8.x-9.2.x and OS X!

### Memory for Apple G3/G4 PowerMacs, PowerBooks, iBooks, iMacs & Cubes!

#### PC133 CL2 & CL3 SDRAM DIMMs



For All PowerMac G4 Models 350-Dual 1GHz that use SDRAM DIMMs (except G4 'Yikes' PCI); iMac G3/350-700MHz, all G4 Cube Models; eMac G4/700-800MHz.

256MB	\$34.99	512MB	\$59.99
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Apple includes only standard PC133 CL3 memory, but you can get extra performance by upgrading to High-Performance PC133 CL2

256MB PC133 CL2 2-2-2 HiPerformance	\$39.95
512MB PC133 CL2 2-2-2 HiPerformance	\$64.95

#### 184pin DDR for New Aug' 02 Macs

PC2100 DDR 266MHz CAS 2.5

For all Xserve models, G4 Dual 867MHz only



256MB	\$79.97
512MB	\$109.97

#### PC2700 DDR 333MHz CAS 2.5

For all Xserve Models, all 'new' G4 Dual 867MHz-1.25GHz models

256MB	\$84.99	512MB	\$139.99
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PC2700 is backwards compatible with PC2100 and may also be used in models that require only PC2100

#### PC100 CL2 SDRAM DIMMs

For all PowerMac G3 Models, PowerMac G4/350-500MHz (except G4/466 which requires PC133); All G4 Cube Models; iMac G3/350-700MHz.



128MB	\$19.95	256MB	\$29.99**
256MB	\$31.95*	512MB	\$59.95*

\* For PowerMac G4 AGP / Sawtooth models, G4 Cube, iMac 350-700MHz ONLY  
\*\* For PowerMac G3 Beige, G3 Blue & White, G4 'Yikes' PCI Models Only.

Also compatible with Intel / AMD based 'Wintel' machines.

### 3.5" ATA/IDE drives



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30GB Maxtor Fireball-3 7200rpm \$75.99  
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80GB Seagate Barracuda IV 7200rpm \$119.99  
7200rpm, 8.9ms seek, 2048K cache, ATA/100, 3yr Seagate warranty

120GB IBM Deskstar 180GXP 7200rpm \$189.95  
7200rpm, 8.5ms seek, 2048K cache, ATA/6, 3yr IBM warranty

180GB Western Digital 7200rpm JUMBO \$289.95  
JUMBO high-performance 8MB cache, 3yr Western Digital Warranty

200GB Western Digital 7200rpm JUMBO \$359.95  
JUMBO high-performance 8MB cache, 3yr Western Digital Warranty

Note: Above ATA Drives are fully compatible with all versions of vanilla ATA/IDE, ATA/33, ATA/66, ATA/100, ATA/133, EIDE, UDMA, Etc. Drives may be used with any Mac that has built in IDE/ATA or an added ATA/IDE controller (such as SILG, Acard, VST, or Sonnet).

Use ATA Drives in ANY PCI PowerMac! Don't have IDE/ATA built in or want a faster ATA/133 interface? OWC has the answers!

#### PC133 CL3 SO-DIMMs

For all Apple iBook models; iMac G4/700-800MHz; PowerBook G3 FireWire (yr 2000, aka Pismo); All PowerBook G4 Models.



256MB	\$39.99
512MB	\$69.95
512MB	\$99.95

For iMac G4, PB G3 FireWire ONLY

Above memory operates PC100 CL2 in models utilizing PC100 memory.

#### PC100 CL2 SO-DIMMs



Apple iMac 233/266/333MHz models (all Rev A-D), PowerBook G3 Wallstreet (1998), PowerBook G3 Lombard (1999).

128MB	\$29.97
256MB	\$59.95
256MB Low Profile	\$74.95*

\* Now you can have up to 512MB in your iMac or above PowerBook model!

## System Works

- Norton Utilities v6.x
- Norton AntiVirus v7.x
- Dantz Retrospect 4.3
- Quicken Deluxe 2000

Supports Apple OS 8 - 9.2.2; OS X



only \$9.99!

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Put up to 60GBs inside your PowerBook or iBook!

20.0GB Fujitsu MHR202AT	\$95.99
4200RPM, 2048k Buffer, 9.5mm, Slim, 3yr warranty	
20.0GB IBM Travelstar 40GNX 5400rpm	\$109.99
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40.0GB IBM TravelStar 40GN	\$139.95
4200RPM, 2048k Buffer, 9.5mm, Slim, 3yr warranty	
40.0GB IBM Travelstar 40GNX 5400rpm	\$159.99
5400RPM, large 8MB Buffer, 9.5mm, Super-Slim, 3yr IBM warranty	
60.0GB Toshiba MK6021GAS	\$239.99
4200RPM, 2048k Buffer, 9.5mm, Super-Slim, 3yr Toshiba warranty	
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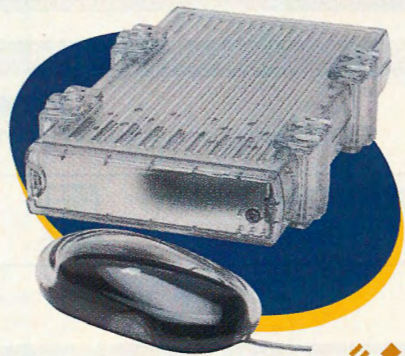
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Top-Rated OWC Mercury Elite FireWire Solutions are ideal for today's high speed Storage, Audio/Video, and Backup needs! High Performance and Superior Reliability come in this Elegant solution by means of the best components coupled with the Oxford911 bridge solution with data rates exceeding 40 MEGABYTES PER SECOND!

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- Cool Blue Activity Indicator LED
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- 2 FireWire Ports
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- U.S./International 90-240v AutoSwitching
- FireWire Cable Included

- USB Cable Included (USB Models Only)
- Intech HD Speedtools Included
- Compatible with ALL Apple OS Versions 8.5-9.2.x; Apple OS X 10.0.3 and higher (including 10.2)
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All OWC Mercury FireWire Hard Drives include Intech's SpeedTools Utility for Mac.



**FireWire;  
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60GB 7200RPM 2MB	\$185.99	\$199.95
80GB 7200RPM 2MB	\$199.99	\$219.95
120GB 7200RPM 8MB	\$289.99	\$309.95
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The Mercury On-The-Go FireWire and FireWire+USB2 are the most compact high performance storage solutions available! So small as to fit in the palm of your hand and weighing in at less than 12 ounces, these drives give the maximum performance possible utilizing the same Oxford911 bridge as our Elite Series. With data rates exceeding 30 MEGABYTES PER SECOND, this truly is high performance storage 'On-The-Go'!



Plug and Play compatible with Apple OS 8.6 - 9.2.2, OS X; WindowsSE, 2000, XP; Any OS with FireWire Support.

### Key Features:

Shock Isolation System protects drive; Cool Blue LED Activity Indicator; Near Silent Operation; Large 2MB or 8MB Data Buffer; Bus Powered or with included AC Adapter; All Cables, Carrying Case; Intech SpeedTools included.

	FireWire	FW + USB 2.0/1.1
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20GB 5400rpm 8MB	\$195.97	\$215.97
40GB 4200rpm 2MB	\$219.97	\$239.97
40GB 5400rpm 8MB	\$249.97	\$269.97
60GB 4200rpm 2MB	\$319.97	\$339.97
80GB 4200rpm 8MB	NEW / CALL!	

Drive may be powered by FireWire Bus or with included power adapter.

### James Coates of the Chicago Tribune:

"Mac users likely will just break into smiles when they plug this high speed hard drive into the FireWire ports on their machines."

MyMac.com review  
5 out of 5



## OWC Mercury CD-R & CD-RW / DVD-R & DVD-RW FireWire + USB 2.0/1.1 Solutions

Burn your own CDs and DVDs for Backup, Data, Movies, Music, Presentations, and MORE! For both FireWire and USB equipped computers, we have the high speed solutions your looking for! All Mercury CD and DVD FireWire and FireWire+USB2/1.1 utilize a custom Oxford911 bridge and the best in optical drive technology to insure the best performance and reliability that translates to no wasted media turned coasters.

All solutions feature 1yr warranty US/International Switching Power Supply, 2 FireWire Ports, FireWire Cable, 25 Pack of 80 Minute CD-R Media, full compatibility with Apple OS 8.6 - 9.2.x & OS X. Also compatible with any OS supporting USB or FireWire storage. All CD Solutions include Roxio Toast Lite 5.1.x. All DVD Solutions include CharisMac DiscRise 5.x and 5 Pieces of 2X Certified DVD-R Media.

### CD-R/RW External Solutions:

Compatible with Apple iTunes, Disc Burner, Roxio Toast, DiscRise, Nero, and just about any Windows CD Authoring/Player software

Mercury 40x12x48x CD-R/RW with 8MB Buffer & BurnProof Technology	FireWire	\$175.95	\$199.95
Mercury 48x24x48x CD-R/RW with 2MB Buffer & SmartBurn Technology	FireWire	\$139.99	\$159.99
Mercury 52x24x52x CD-R/RW with 2MB Buffer & SmartBurn Technology	FireWire	\$159.99	\$179.99

### DVD-R/RW & CD-R/RW 'SuperDrive' Solutions:

Compatible with Apple DVD Studio Pro, Apple iTunes, Roxio Toast, CharisMac DiscRise, and just about any Windows CD/DVD Authoring or Player software.

Mercury DVR-105 Pioneer 4X DVD-R/2X & DVD-RW/16X & CD-R(W)/8X 'SuperDrive'	FireWire	\$399.99	\$419.99
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OWC also stocks FireWire and USB Storage Solutions from Lacie and Ezquest. Call or visit <http://www.MacSales.com> for all of the latest products offered by OWC

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**MacAilly \$79.95**  
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Uncompromising quality for Audio input and output for serious Audio work on your Mac!

Full 24 Bit/96khz 4 Port Audio In and Outs provide for MultiTrack recording, MIDI Recording and Playback, Home Theater & MORE! Computer Music Magazine says: How does it sound? Well, in a word, stunning.



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/DTS/Dolby Pro-Logic Upgrades \$79.00**

Plug and Play USB device that lets your Mac go all the way with Output/Playback!

**Contour Design USB  
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\$99.95**



Excellent USB device for controlling your Mac Audio and Video functions. Replaces key and mouse strokes + much more for accurate control.

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iOptiNet and iOptiNet Jr. Optical Scrolling Mice -  
5 color covers included

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Same as iOptiNet, but ideal for travel or smaller hands!

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## Mac PowerBook Batteries



**Apple iBook (All 'Clamshell' Models)  
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## Mac PRAM Batteries



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Apple OS X 10.0.1 and 9.1 Bundle only **\$69.95!**  
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G4/450MHz with 1024k L2 Cache **\$189.99**  
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Upgrades for PowerMac G3 Beige, G3 Blue & White, G4 'Yikes' PCI. High Quality, High-Performance, High-Reliability. OWC uses ONLY processors rated for the speed advertised, if not faster!



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GR-DVL520	489.99
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GR-DVL920	549.99
GY-DV500	2899.99
GY-DVM76	529.99
GY-DVM96	549.99

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- 3072x2048 Resolution
- 2/3" CCD



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NEW! EOS 1DS	CALL
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- Digital Ice Technology
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- 4000 DPI
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60GB	\$169/ \$179	\$179/ \$189
80GB	\$178/ \$189	\$189/ \$199
120GB	\$229/ \$239	\$239/ \$249
180GB	NA/ \$369	NA/ \$379
200GB	NA/ \$389	NA/ \$399

All Piranha external drives come with FireWire cable and power cable and heat utility for Mac. Compatible with OS 8.6-9.X and 10.X and Win 98 2nd edition and higher..

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Pioneer 104 (2x DVD Recorder, Bare)	\$279
Pioneer A05 (4x DVD Recorder, Retail Box)	\$329
Pioneer 105 (4x DVD Recorder, Bare)	\$289
Toshiba SDR5002 (2x DVD Recorder, Retail Box)	\$319
Toshiba SDR5002 Bare (2x DVD Recorder, Bare Drive)	\$289
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G3/600/256MB/40GB/CDRW/56K/Ethernet	\$775
G3/500/128MB/20GB/CDRW/56K/Ethernet	\$839
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G3/233MHZ/32MB/2GB/CD	\$499
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G3/300MHZ/64MB/8GB/CD	\$649
G3/333MHZ/64MB/4GB/CD	\$689

### I-Book

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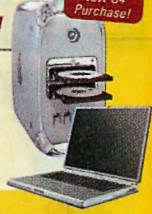
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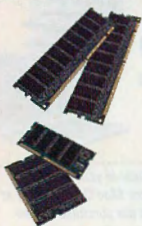
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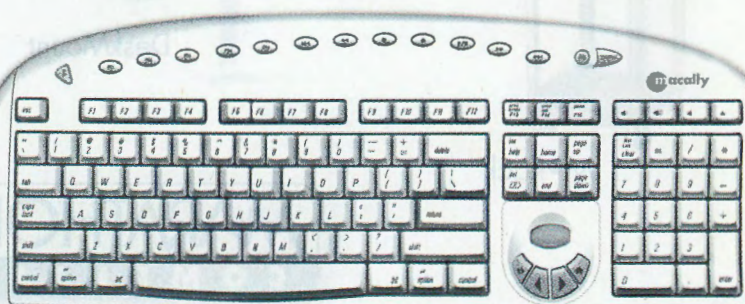
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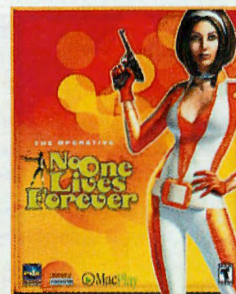
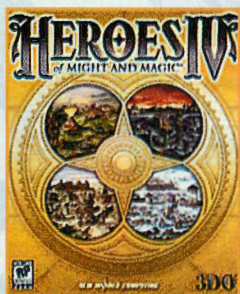
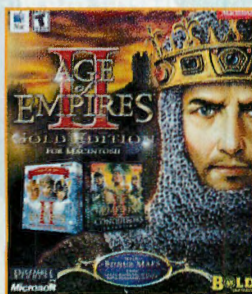
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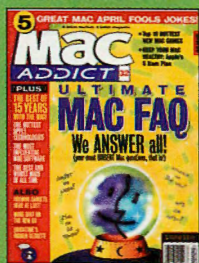
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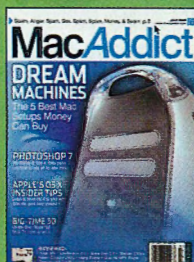
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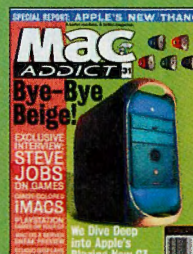
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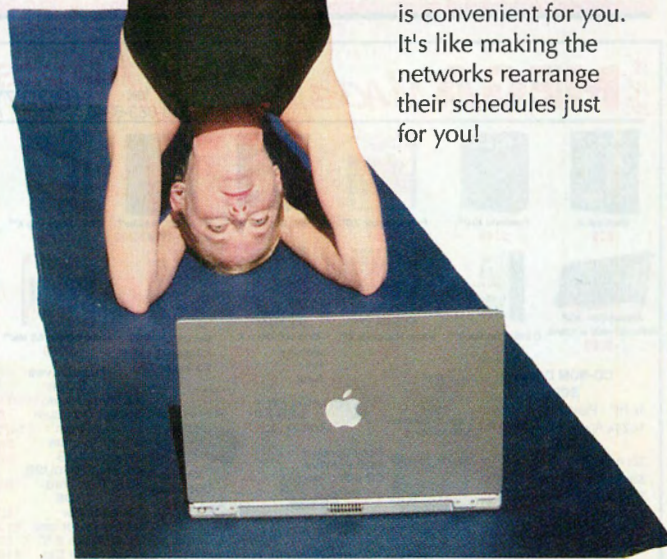
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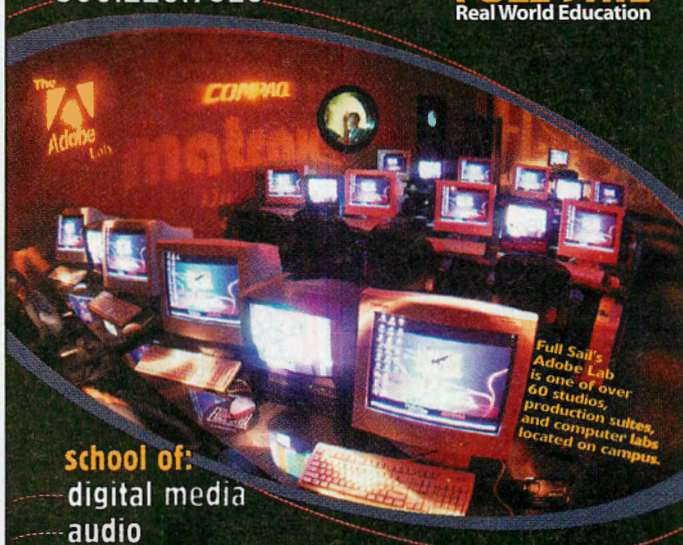


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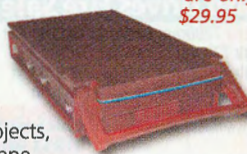


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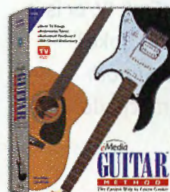
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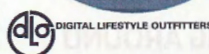
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# LETTERS

## NOTE TO APPLE

Apple should let OS 9 die of old age, not assassinate it. Like most other professional desktop publishers I know, I don't want to be a beta tester for not-quite-ready software, and especially not for operating systems. If Apple thinks it can herd users into a new OS by making it inconvenient to stay with an older, more familiar and universal one, the company just might encounter backlash from the folks who made them famous—the pros in the graphic arts industry.—*John O'Donnell*

**Just don't shoot the messenger.—Max**

## ELFIN MAGIC

In your review of WarCraft III (Reviews, Dec/02, 48), you represented the Night Elf race with a demon.—*Jeff*

**See what war does to people? —Max**

## SHELLSHOCK

I have several comments about your review of WarCraft III: First, the character Archmond, who you say is an elf, does not belong to the Night Elves; he is the WarCraft equivalent of Satan, and an all-around badass. Second, the game isn't slow even on my Mac, which I bought in 2000. Third, you forgot to mention that there are creeps who will attack you, as opposed to StarCraft creeps who don't mind your blowing them apart with railroad spikes. And



The face of our art department's nightmares.

fourth, I wonder if the Panadern race will be in WarCraft IV, or is it all just an April Fools' joke?

—*Alison Land, aka Sigroth*

**You don't get out much, do you?—Max**

## REALITY PC

Your article ("The Truth," Dec/02, p25) had a certain, well, full-of-BS touch to it. You come across as people who believe that the Mac is infallible and that everyone uses a Power Mac. What about us folks with the 500MHz iBook G3s?



Windows comes up a little light.



We can hardly put in memory ourselves without voiding the warranty, much less perform bigger upgrades such as video cards. You ought to present the occasional drawback to owning a Mac; it makes your case more believable, not to mention that it's better journalism.

—*Matt Carlson*

**Dude, adding RAM to an iBook is child's play and doesn't void your warranty—search for document 50031 in the Support area of [www.apple.com](http://www.apple.com) for help. Oh, and no laptop maker in the whole wide world supports video-card upgrades.—Max**

## SCREWING AROUND AT THE MALL

I am emailing you from outside the new Apple Store in Pennsylvania's King of Prussia Mall, where I am mooching off the ambient bandwidth on

## RECENTLY SIGHTED



We have a beagle named Mac and a beagle-basset hound mix named Tosh. When they get into trouble together, we can yell, "Mac and Tosh!"

—*Efrain Palermo*

my Pismo PowerBook G3 via a newly purchased (and hastily installed) AirPort card. Even though a bench at the mall is not exactly the best environment for removing small screws, I just couldn't wait. The store's grand opening had a 100-yard-long line, but I still got a free T-shirt.

—*Ken Cox*

**Is bringing a Pismo PowerBook G3 to an Apple store sort of like driving your Chevette into a Corvette dealer? Anyway, congrats on the mall installation.—Max**

## NEIN!

I am totally with you on the OS 9 situation! Not to mention the whole paper money thing. Right on, man! In fact, I am so impressed with your passion and courage for speaking out on this issue that I'm including my address so you can mail me either a copy of OS X (purchased on your credit card, of course, so you can get those frequent-flier miles) or any cash you're forced to accept by ignorant Stone Age types who refuse to embrace the future.—*Debbie Frost*

**Debbie's letter refers to the article "Nein!" (Shut Down, Dec/02, p96), where we mock Mac OS 9 nostalgia. We're thinking that Debbie is using**

**the literary device known as sarcasm, which coincidentally is exactly the same literary device we used in our article!—Max**

## A GOOD REASON TO BUY A MAC?

Yesterday I went out to our Honda to discover that my portable CD player, CDs, and other items had been stolen right out of our car parked in the alley. Man! Worse, I discovered that the Apple Laser Printer was gone as well. Man! As I left for work, I noticed something sticking out of a trash can at the end of the alley—the Apple Laser Printer. Obviously, the thief realized it was an Apple printer that he could neither use nor sell easily. All of a sudden 5 percent market share is a very good thing.—*Chris and Gwen Hawk*

**I can hear the groan coming all the way from Steve's office in Cupertino.—Max**

## SOMETHING OLD, SOMETHING NEW

I loved the article "The New Newton Thing," (*Get Info*, Dec/02, p10) and "The Mod Squad" (*Get Info*, Dec/02, p11). Please keep covering the older stuff along with the new.

—*Everett Rantanen*

**As one of the older things in the magazine, I wholeheartedly agree.—Max**



## WRITE TO US!

MacAddict, 150 North Hill Dr.,  
Brisbane, CA 94005  
or [letters@macaddict.com](mailto:letters@macaddict.com)

FOR CD PROBLEMS:  
go to [www.futurenetworkusa.com](http://www.futurenetworkusa.com)

FOR SUBSCRIPTION QUERIES:  
call (toll-free) 888-771-6222

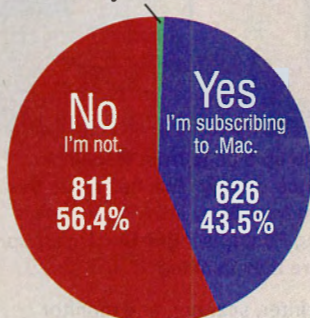
LOG OUT 95

# SURVEY SAYS

Here's How You Responded to Our Online Polls

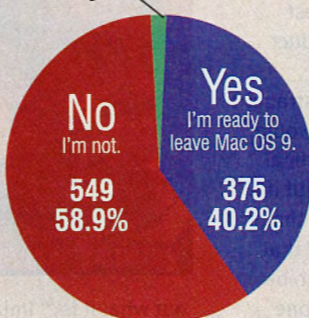
Do you subscribe or are you  
planning to subscribe to .Mac?

I'm totally incoherent 0.1%



Are you ready to leave  
Mac OS 9 behind?

I forgot to answer 0.9%



## MacAddict READER POLL

# Q

How do you connect to the Internet?

- DSL
- Cable
- Dial-up modem

To vote, click Reader Poll at [www.macaddict.com](http://www.macaddict.com) before January 10, 2003. See the April 2003 issue for the results. Check [www.macaddict.com](http://www.macaddict.com) for a new poll each month.

## LOOK WHO'S WON A SURFBOARD

Goggles off to the Sims Vacation  
Summer Surfin' Contest Winner

Who says Bondis have more fun? Check out this  
G4 iMac swimming with the stingrays.

Congratulations to MacAddict reader David  
Solon for taking his Mac on the best vacation  
we've ever seen. He wins a 6-foot, 3-inch short  
board, made by Seek Surfboards, with a custom  
Aspyr paint job.

Check out this G4 iMac on a  
warranty-voiding adventure.



## NEXT MONTH

### APPLE'S LATEST AND GREATEST

Rumors are swirling that January's Expo announcements will be big. Very big.  
Very, very big. We'll give you the complete story.

### DEMYSTIFYING DISK UTILITIES

The more you know about your hard drive and disk utilities, the better prepared  
you'll be when your drive misbehaves.

### THE WORLD'S GREATEST PRINTERS

We put a plethora of powerful printers through punishing paces.

## I WANT MY MAX TV!

Put Max on TV  
and Win an EyeTV

Max has been  
watching  
way too many

*Sopranos* episodes. The  
other day he came in from  
the Bada Bing, slammed  
his fist on the table, and  
demanded his own TV show. We said, "Maxie,  
we write magazines, not TV scripts. How we  
gonna give you your own show?"

He said, "You figure it out or you'll end up  
like Pussy." And you know what that means.

So help us out. Write a 100-word pitch for a  
TV pilot for Max. If we like yours the best, you  
win an EyeTV DV recorder from El Gato Software  
(\$199, [www.elgato.com](http://www.elgato.com)).



Write Max a TV pilot  
and win an EyeTV  
DV recorder.

PHOTOGRAPH BY MARK MADEO

## MAX TV CONTEST

Write a 100-word pitch for a TV pilot for Max.

### CONTESTANT INFORMATION

Full Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_  
State: \_\_\_\_\_  
Zip: \_\_\_\_\_  
Email or telephone: \_\_\_\_\_

Send email entries to: [contest@macaddict.com](mailto:contest@macaddict.com),  
Subject: Max TV Contest

Send snail-mail entries to:  
Max TV Contest  
MacAddict magazine, 150 North Hill Dr.  
Brisbane, CA 94005  
Deadline for entry: February 28, 2003

### Contest Rules

The judges will be MacAddict editors and they will base their decision on the following  
equally weighted criteria: 33.3 percent quality of execution, 33.3 percent creativity, and  
33.3 percent humor. All entries must be received no later than February 28, 2003, with  
the winner announced on or around June 2003. By entering this contest, you agree  
that Future Network USA may use your name, likeness, and Web site for promotional  
purposes without further payment. All prizes will be awarded and no minimum number  
of entries is required. Prizes won by minors will be awarded to their parents or legal  
guardians. Future Network USA is not responsible for damages or expenses the winners  
might incur as a result of the contest or the receipt of a prize, and winners are responsible  
for income taxes based on the value of the prize received. A list of winners may also  
be obtained by sending a stamped, self-addressed envelope to Future Network USA  
c/o MacAddict contest, 150 North Hill Dr., Brisbane, CA 94005. This contest is limited  
to residents of the United States. No purchase necessary; void in Arizona, Maryland,  
Vermont, Puerto Rico, and where prohibited by law.

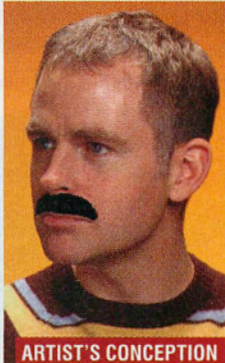


# ART DIRECTOR THREATENS TO GROW MUSTACHE IN PROTEST OF PRODUCT NAMES

## Coworkers Prepare for Worst

BRISBANE, CA—Christopher Imlay, art director of *MacAddict* magazine, announced that he will grow a mustache in protest of what he terms “absurdly long and frivolously obtuse product names.”

At a staff meeting Wednesday, Imlay delivered to his distraught coworkers a list of conditions that must be met before he would shave, saying, “I acknowledge the usefulness of three decimal places in software updates downloadable from the Web, but if a software company puts out a product in a box—a package that it paid tens of thousands of dollars to print and produce and that is intended for display on a store shelf—why does it need to be a version 8.0.28?” Reports indicate that Imlay’s agitated tone of voice, rising in volume, was audible outside the closed-door meeting. He continued, “And can anyone honestly tell me, a consumer, how naming a product HL-1850N will help me figure



ARTIST'S CONCEPTION



Imlay held up a page from *MacAddict* as evidence, saying, “We had to cut this one down from Sony MDR-NC11 Noise Canceling Fontopia® Ear-Bud Headphones. What were they thinking?!”

CHRISTOPHER'S MANIFESTO—MAIN POINTS:	
BANNED:	RECENT OFFENDERS:
More than one decimal place	Unity DS-1 2.0.1
Anything “pro,” “studio,” or “deluxe”	AceReader Pro Deluxe 2.0
Gratuitous use of the letter x	CMacTeX 4.2
Names with more than one internal cap	DataViz MacLinkPlus 13.002
Anything resembling a security code	Spice 3f4v02b
Gratuitous use of the letter i	iOpener 1.0
Just really long names	Pajama Sam 3: You Are What You Eat From Your Head To Your Feet

out what it is?” Imlay indicted printer, scanner, and monitor manufacturers, whom he said “must stop including useless litanies of numerals and characters in the names of product lines.”

His shaken coworkers reacted to the news immediately by calling their contacts at companies prone to cryptic product nomenclature, spurred on by terror at the prospect of facial hair on Imlay’s upper lip. “Yeah, Chris just dropped a bomb on us this afternoon,” said Rik Myslewski, the magazine’s editor in chief. “I immediately put down the review of the Asanté FriendlyNET USB205 Hi-Speed 5-Port USB PCI Adapter I was working on, picked up my M7324, and started calling company reps, begging them to relent.”

Imlay did not specify what form the mustache would take if the accused developers and manufacturers do not acquiesce to his demands. This uncertainty is the number one fear of those forced to work with him during the coming weeks. “Please, God, don’t let it be a handlebar-style mustache!” cried out *MacAddict* News Editor Narasu Rebbapragada. “They’re so creepy!”

# MULTIFUNCTION MIRRORS

## The Ones That Got Away

Only The Greatest Egoist Of Them All would think to bedeck Apple’s newest hardware with heavy doses of mirrored metal. Here are a few alternative uses for the Mirror, Mirror On Your Mac:

**For the fashion-plate:** Forget those interlocking Chanel-logo “C”s, and start a new trend. Pry off the apple-shaped mirror from your iMac, and toss it in your purse to battle those mascara-smudge blues.

**For the pizza face:** Strike out on a campaign for a whitehead-free America! Check for burgeoning blemishes on the hour without ever leaving your computer!

**For the swinger:** Place your Power Mac strategically, and you could enjoy a legs-up view of the Mary Tyler Moore in your office.

**For the Robinson Crusoes:** When spearing fish becomes tiresome and skin cancer imminent, you can use your Apple Pro speakers to signal rescue aircraft by reflecting sunlight. SOS. SOS.

**For the paranoid:** Boo! It’s true: Your boss is out to get you! Rest assured: Move your eyes to the mirrors between Solitaire moves, and you can spot that evil-maniacal snoop sneaking up behind you before you can smell the schnapps on his or her breath.



Everybody say squeeze!



There's a better way to deal with your computer problems...



## See the new TechTool Pro 4 !

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